MUSCLE ! NERVE AANEM



Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

VOLUME 41

ISSUE 1-6

JANUARY-JUNE 2010



MUSCLE & NERVE AANEM



CONTENTS

92

and Yun Yuan, MD, PhD

Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

JANUARY 2010

EDITORIAL	1	From the Editor: January 2010 Lawrence H Phillips II, MD
REVIEWER ACKNOWLEDGMENTS	2	Reviewer Acknowledgments Lawrence H Phillips II, MD, Editor-in-Chief
INVITED REVIEW	5	RNA Processing Defects Associated with Diseases of the Motor Neuron Stephen J. Kolb, MD, PhD, Scott Sutton, BS, and Daniel R. Schoenberg, PhD
MAIN ARTICLES	18	Probabilistic Muscle Characterization Using QEMG: Application to Neuropathic Muscle L.J. Pino, PhD, D.W. Stashuk, PhD, S.G. Boe, MPT, PhD, and T.J. Doherty, MD, PhD
	32	Normal Values for Quantitative Muscle Ultrasonography in Adults Ilse M.P. Arts, MD, Sigrid Pillen, MD, H. Jurgen Schelhaas, MD, PhD, Sebastiaan Overeem, MD, PhD, and Machiel J. Zwarts, MD, PhD
	42	Neuronal and Glial Cerebrospinal Fluid Protein Biomarkers are Elevated After West Nile Virus Infection A. Petzold, MD, PhD, M. Groves, PhD, A.A. Leis, MD, F. Scaravilli, MD, DSc, and D.S. Stokic, MD, DSc
	50	Anti-Ganglioside Autoantibodies in Type 1 Diabetes Marta Lucchetta, MD, Salvatore Rudilosso, MD, Silvana Costa, MD, Daniela Bruttomesso, MD, Susanna Ruggero, PhD, Elisabetta Toffanin, PhD, Diego Faggian, MD, Mario Plebani, MD, Leontino Battistin, MD, Armin Alaedini, PhD, and Chiara Briani, MD
	54	Kinetics of Neuromuscular Changes During Low-Frequency Electrical Stimulation Maria Papaiordanidou, MSc, David Guiraud, PhD, and Alain Varray, PhD
	63	Voluntary Activation in the Triceps Brachii at Short and Long Muscle Lengths Arthur J. Cheng, MSc and Charles L. Rice, PhD
	71	Heteronymous Ia-Afferent Connections in the Upper Limb Following Stroke Gwyn N. Lewis, PhD and Peter J. McNair, PhD
	78	Normalization Reduces the Spatial Dependency of the Jaw-Stretch Reflex Activity in the Human Masseter Muscle Michail Koutris, MSc, Machiel Naeije, PhD, Frank Lobbezoo, PhD, Kelun Wang, PhD, Lars Arendt-Nielsen, DMSc, PhD, Peter Svensson, DMSc, PhD, and Dario Farina, PhD
	85	Evolution of the Phenotype in a Family with an <i>LMNA</i> Gene Mutation Presenting with Isolated Cardiac Involvement Nicola Carboni, MD, Maurizio Porcu, MD, Marco Mura, MD, Eleonora Cocco, MD, Giovanni Marrosu, MD, Maria A. Maioli, MD, PhD, Elisabetta Solla, BS, Stefania Tranquilli, BS, Pierpaolo Orrù, MD, and Maria G. Marrosu, MD

Clinical Phenotype of Autosomal Dominant Progressive External Ophthalmoplegia in a Family with a Novel Mutation in the C10orf2 Gene Daojun Hong, MD, Hongyan Bi, MD, Sheng Yao, MD, Zhaoxia Wang, MD,

	100	Involvement of PI3K/Akt/TOR Pathway in Stretch-Induced Hypertrophy of Myotubes Nobuaki Sasai, MS, Nobuhide Agata, MS, Masumi Inoue-Miyazu, BS, Keisuke Kawakami, PhD, Kunihiko Kobayashi, PhD, Masahiro Sokabe, PhD, and Kimihide Hayakawa, PhD
SHORT REPORTS	107	Myokymic Discharges (MDs) in Amyotrophic Lateral Sclerosis (ALS): A Rare Electrophysiologic Finding? Nathaniel R. Whaley, MD and Devon I. Rubin, MD
	110	ROS-Mediated Activation of NF-κB and Foxo During Muscle Disuse Stephen L. Dodd, PhD, Brittany J. Gagnon, BS, Sarah M. Senf, BS, Brian A. Hain, BS, and Andrew R. Judge, PhD
	114	Added Sampling Improves Reproducibility of Multipoint Motor Unit Estimates Namita Goyal, MD, Johnny S. Salameh, MD, Laura E. Baldassari, MHS, and William S. David, MD, PhD
	117	Conduction Block of Peripheral Nerve Using High-Frequency Alternating Currents Delivered Through an Intrafascicular Electrode D. Michael Ackermann, Jr, MS, Emily L. Foldes, MS, Niloy Bhadra, MD, PhD, and Kevin L. Kilgore, PhD
ISSUES AND OPINIONS	120	Facioscapulohumeral Muscular Dystrophy: Do Neurotrophins Play a Role? Francesco Angelucci, PhD and Luca Colantoni, BSc
CASES OF THE MONTH	128	Rippling Muscle Disease: Variable Phenotype in a Family with Five Afflicted Members Christian Jacobi, MD, Ruth Ruscheweyh, MD, Matthias Vorgerd, MD, Marc-André Weber, MD, MSc, Brigitte Storch-Hagenlocher, MD, and Hans Michael Meinck, MD
	133	Relief from Episodic Weakness with Pyridostigmine in Paramyotonia Congenita: a Family Study Satish V. Khadilkar, DM, DNBE, R.K. Singh, DM, DNBE, K.A. Mansukhani, MD, J.A. Urtizberea, MD, and D. Sternberg, MD
	138	Primary AL Amyloid Polyneuropathy Successfully Treated with High-Dose Melphalan Followed by Autologous Stem Cell Transplantation Nagaaki Katoh, MD, Masayuki Matsuda, MD, PhD, Takuhiro Yoshida, MD, PhD, Masahide Yazaki, MD, PhD, Hiroshi Morita, MD, PhD, Kazuo Sakashita, MD, PhD, and Shu-Ichi Ikeda, MD, PhD
	144	Impairment of Upper Trapezius Branch of the Spinal Accessory Nerve During Bypass Grafting: a Stretch Injury? Zelal Keleş, MD, Murat Zinnuroğlu, MD, and Mehmet Beyazova, MD
LETTERS TO THE EDITOR	148	Central Nervous System Involvement in Axonal Charcot-Marie-Tooth Disease Xinli Du, MD, PhD, G. Frederick Wooten, MD, Julie A. Matsumoto, MD, and Lawrence H. Phillips II, MD
	151	Magnetic Resonance Imaging Diagnosis of Panniculitis in Dermatomyositis Shoji Hemmi, MD, Ryutaro Kushida, MD, Hirotake Nishimura, MD, Tatsufumi Murakami, MD, and Yoshihide Sunada, MD
	154	Calender of Events
	155	AANEM News and Comments

FEBRUARY 2010

INVITED REVIEW
161 Progressive Muscular Atrophy and Other Lower Motor Neuron Syndromes of Adults

Lewis P. Rowland, MD

MAIN ARTICLES	166	Dysferlin Associates with the Developing T-Tubule System in Roden
		and Human Skeletal Muscle

Lars Klinge, MD, John Harris, PhD, Caroline Sewry, PhD, Richard Charlton, PhD, Louise Anderson, PhD, Steve Laval, PhD, Yen-Hui Chiu, MSc, Mark Hornsey, PhD, Volker Straub, MD, Rita Barresi, PhD, Hanns Lochmüller, MD, and Kate Bushby MD

- 174 Role of Gelatinases in Disuse-Induced Skeletal Muscle Atrophy
 Xuhui Liu, MD, David J. Lee, MD, Laura K. Skittone, BS, Kyle Natsuhara, BS,
 and Hubert T. Kim, MD, PhD
- 179 Skeletal Muscle Cell MHC I Expression: Implications for Statin-Induced Myopathy

Pratibha Singh, MSc, Danielle Kohr, MD, Manfred Kaps, MD, and Franz Blaes, MD

- 185 Immune-Mediated Necrotizing Myopathy Associated with Statins
 Phyllis Grable-Esposito, MD, Hans D. Katzberg, MD, Steven A. Greenberg, MD,
 Jayashri Srinivasan, MD, PhD, Jonathan Katz, MD, and Anthony A. Amato, MD
- 191 Evoked Myotonia can be "Dialed-Up" by Increasing Stimulus Train Length in Myotonic Dystrophy Type 1

 Eric L. Logigian, MD, Paul Twydell, DO, Nuran Dilek, MS, William B. Martens, BA, Chris Quinn, MS, Allen W. Wiegner, PhD, Chad R. Heatwole, MD, Charles A. Thornton, MD, and Richard T. Moxley III, MD
- 197 Frequency and Predictors of Nonalcoholic Fatty Liver Disease in Myotonic Dystrophy Kenneth Shieh, MD, James M. Gilchrist, MD, and Kittichai Promrat, MD
- 202 Clinical and Electrophysiological Parameters Distinguishing Acute-Onset Chronic Inflammatory Demyelinating Polyneuropathy from Acute Inflammatory Demyelinating Polyneuropathy

 Annie Dionne, MD, Michael W. Nicolle, MD, DPhil, and Angelika F. Hahn, MD
- 208 Sensitivity of Electrophysiological Tests for Upper and Lower Motor Neuron Dysfunction in ALS: A Six-Month Longitudinal Study

 Mamede de Carvalho, MD and Michael Swash, MD
- 212 Factors Associated with Response to Calcineurin Inhibitors in Myasthenia Gravis Yuriko Nagane, MD, PhD, Shigeaki Suzuki, MD, PhD, Norihiro Suzuki, MD, PhD, and Kimiaki Utsugisawa, MD, PhD
- 219 Construct and Concurrent Validation of the MG-QOL15 in the Practice Setting Ted M. Burns, MD, C.K. Grouse, MSc, Mark R. Conaway, PhD, Donald B. Sanders, MD, and The MG Composite and MG-QOL15 Study Group
- 227 Effect of Superficial Peroneal Nerve Fascial Penetration Site on Nerve
 Conduction Studies
 Geun-Young Park, MD, PhD, Sun Im, MD, Jong-In Lee, MD, PhD, Seong-Hoon Lim, MD, MS,
 Young-Jin Ko, MD, PhD, Myung-Eun Chung, MD, MS, Bo-Young Hong, MD,
 and Hye-Won Kim, MD, PhD
- 234 High-Pass Filtering Surface EMG in an Attempt to Better Represent the Signals
 Detected at the Intramuscular Level
 Stephen H.M. Brown, PhD, Rebecca L. Brookham, MSc, and Clark R. Dickerson, PhD
- 240 Relationship of Q-Sweat to Quantitative Sudomotor Axon Reflex
 Test (QSART) Volumes
 David M. Sletten, BA, Stephen D. Weigand, MS, and Phillip A. Low, MD
- 247 In Vivo Assessment of HCN Channel Current (I_h) in Human Motor Axons Susan Tomlinson, FRACP, David Burke, MD, DSc, Mike Hanna, MD, FRCP, Martin Koltzenburg, MD, FRCP, and Hugh Bostock, PhD

SHORT REPORTS 257 Mitochondrial Respiratory Chain and Creatine Kinase Activities in mdx Mouse Brain

Lisiane Tuon, PhD, Clarissa M. Comim, MSc, Daine B. Fraga, BSc, Giselli Scaini, BSc, Gislaine T. Rezin, MSc, Bruna R. Baptista, BSc, Emilio L. Streck, PhD, Mariz Vainzof, PhD, and João Quevedo, MD, PhD

260 The Illusion of Severe Carpal Tunnel Syndrome (CTS)
Ludwig Gutmann, MD and Christopher Nance, MD

	262	Somatosensory Evoked Potential Monitoring of the Brachial Plexus During a Woodward Procedure for Correction of Sprengel's Deformity Kevin G. Shea, MD, Peter J. Apel, MD, Larry D. Showalter, MD, and William L. Bell, MD
CASES OF THE MONTH	265	Sensory Ataxic Neuropathy Dysarthria and Ophthalmoparesis (SANDO) in a Sibling Pair with a Homozygous p.A467T POLG Mutation John C. McHugh, MRCPI, Roisin Lonergan, MRCPI, Rachel Howley, BSc, Killian O'Rourke, MD, Robert W. Taylor, PhD, Michael Farrell, FRCPath, Michael Hutchinson, FRCPI, and Sean Connolly, FRCPI
	269	Non-Lethal Neonatal Neuromuscular Variant of Glycogenosis Type IV with Novel GBE1 Mutations Carla Fernandez, MD, PhD, Cécile Halbert, MD, André Maues de Paula, MD, Valerié Lacroze, MD, Roseline Froissart, MD, Dominique Figarella-Branger, MD, PhD, Brigitte Chabrol, MD, and Jean-François Pellissier, MD
	272	Sporadic Late Onset Nemaline Myopathy Responsive to IVIg and Immunotherap Margherita Milone, MD, PhD, Amiram Katz, MD, Anthony A. Amato, MD, Carl A. Soderland, MD, MPH, Miruna Segarceanu, MD, Nathan P. Young, DO, and H. Royden Jones, MD
	276	HIV Lumbosacral Radiculoplexus Neuropathy Mimicking Lymphoma: Diffuse Infiltrative Lymphocytosis Syndrome (DILS) Restricted to Nerve? Nizar Chahin, MD, Zelalem Temesgen, MD, Paul J. Kurtin, MD, Robert J. Spinner, MD, and P. James B. Dyck, MD
LETTERS TO THE EDITOR	283	Acute Motor Conduction Block Neuropathy or Acute Multifocal Motor Neuropathy: An Attempt at a Nosological Systematization Antonino Uncini, MD, Claudia Manzoli, MD, and Margherita Capasso, MD
	285	Reply Fiore Manganelli, MD, Chiara Pisciotta, MD, Rosa Iodice, MD, Raffaele Dubbioso, MD, and Lucio Santoro, MD
	286	Chemotherapy is Successful in Sporadic Late Onset Nemaline Myopathy (SLONM) with Monoclonal Gammopathy Jan Novy, MD, Anne Rosselet, MD, Olivier Spertini, MD, Johannes Alexander Lobrinus, MD Thomas Pabst, MD, and Thierry Kuntzer, MD
	287	Atypical Double Nerve Lesion After Humeral Fracture: Diagnosis by Ultrasound Giovanna Liotta, MD, Giuseppe Granata, MD, Alessia Librante, MD, Antonella Di Pasquale, MD, Pietro Caliandro, MD, PhD, Carlo Martinoli, MD, and Luca Padua, MD, PhD
	288	Reply Robert Layzer, MD and Marta Margeta, MD, PhD
	288	The Prevalence of Rimmed Vacuoles in Biopsy-Proven Dermatomyositis Vidya S. Limaye, FRACP, PhD and Peter Blumbergs, FRACP, FRCPA
ERRATUM	290	Erratum
	291	Calender of Events
	292	AANEM News and Comments

MARCH 2010

INVITED REVIEW	299	Justin G. Boyer, MSc, Marija A. Bernstein, MSc, and Céline Boudreau-Larivière, PhD
MAIN ARTICLES	309	Does Display Sensitivity Influence Motor Latency Determination? Nobushige Takahashi, MD and Lawrence R. Robinson, MD
	313	Martin-Gruber Anastomosis with Anomalous Superficial Radial Innervation to Ulnar Dorsum of Hand: A Pitfall When Common Variants Coexist A. Arturo Leis, MD, Ivana Stetkarova, MD, PhD, and Keionna J. Wells, R.EDT

318	Measuring Sensory Nerve Action Potential Electrical Power Niles M. Roberts, MD and Jacquelina J. Wertsch, MD
324	Driving with Polyneuropathy S. Charles Cho, MD, Hans D. Katzberg, MD, Anil Rama, MD, Byung-Jo Kim, MD, PhD, Hakjae Roh, MD, Jongsoo Park, MD, Jonathan Katz, MD, and Yuen T. So, MD, PhD
329	Enhanced Homosynaptic LTD in Cerebellar Purkinje Cells of the Dystrophic mdx Mouse Jennifer L. Anderson, BSc, John W. Morley, PhD, and Stewart I. Head, PhD
335	Effect of Locally Delivered IGF-1 on Nerve Regeneration During Aging: An Experimental Study in Rats Peter J. Apel, MD, Jianjun Ma, MD, PhD, Michael Callahan, PhD, Casey N. Northam, BS, Timothy B. Alton, BS, William E. Sonntag, PhD, and Zhongyu Li, MD, PhD
342	Linearity and Reliability of the Mechanomyographic Amplitude Versus Dynamic Torque Relationships for the Superficial Quadriceps Femoris Muscles Matthew S. Stock, MS, Travis W. Beck, PhD, Jason M. DeFreitas, BS, and Michael A. Dillon, BS
350	Sonographic Measurements of Longitudinal Median Nerve Sliding in Patients Following Nerve Repair Ertan Erel, FRCS, Andrew Dilley, PhD, Sarah Turner, MCSP, Prem Kumar, MRCS, Waqar A. Bhatti, FRCR, and Vivien C. Lees, FRCS(Plast)
355	Syrian Hamster Infected with <i>Leishmania infantum</i> : A New Experimental Mode for Inflammatory Myopathies Orlando Paciello, DVM, PhD, Slawomir Wojcik, MD, PhD, Luigi Gradoni, BSc, PhD, Gaetano Oliva, DVM, Francesca Trapani, DVM, Valentina Iovane, DVM, Luisa Politano, MD, and Serenella Papparella, DVM
362	Muscle Strength and Fatigue in Patients with Generalized Myasthenia Gravis Caitlin J. Symonette, MSc, Bradley V. Watson, BSc, Wilma J. Koopman, MSCN, RN, Michael W. Nicolle, MD, DPhil, and Timothy J. Doherty, MD, PhD
370	Clinical Findings in MuSK-Antibody Positive Myasthenia Gravis: A U.S. Experience Mamatha Pasnoor, MD, GlL I. Wolfe, MD, Sharon Nations, MD, Jaya Trivedl, MD, Richard J. Barohn, MD, Laura Herbelin, BS, April McVey, MD, Mazen Dimachkie, MD, John Kissel, MD, Ronan Walsh, MD, Anthony Amato, MD, Tahseen Mozaffar, MD, Marcel Hungs, MD, Luis Chui, MD, Jonathan Goldstein, MD, Steven Novella, MD, Ted Burns, MD, Lawrence Phillips, MD, Gwendolyn Claussen, MD, Angela Young, MD, Tulio Bertorini, MD, and Shin Oh, MD
375	Rituximab in the Management of Refractory Myasthenia Gravis Nazlee Zebardast, MS, Huned S. Patwa, MD, Steven P. Novella, MD, and Jonathan M. Goldstein. MD
379	Ocular Myasthenia Gravis in a Senior Population: Diagnosis, Therapy, and Prognosis Jeffrey A. Allen, MD, Stephanie Scala, MA, and H. Royden Jones, MD
385	Effects of Exercise and Muscle Type on BDNF, NT-4/5, and TrKB Expression in Skeletal Muscle Daniel I. Ogborn, MSc and Phillip F. Gardiner, PhD
392	Perioral Skin Biopsy to Study Skeletal Muscle Protein Expression Lucio Santoro, MD, Maria Nolano, MD, Stefania Faraso, BSD, Chiara Fiorillo, MD, Carmen Vitiello, PhD, Vincenzo Provitera, MD, Stefania Aurino, PhD, and Vincenzo Nigro, MD
399	Early Effects of Carbachol on the Morphology of Motor Endplates of Mammalian Skeletal Muscle Fibers

SHORT REPORTS

406

Effects of Coil Characteristics for Femoral Nerve Magnetic Stimulation

Katja Tomazin, PhD, Samuel Verges, PhD, Nicolas Decorte, MSc, Alain Oulerich, BSc, and Guillaume Y. Millet, PhD

Tilman Voigt, PhD

409 Small Fiber Neuropathy in Female Patients with Fabry Disease
Rocco Liguori, MD, Vitantonio Di Stasi, MD, Enrico Bugiardini, MD, Renzo Mignani, MD,
Alessandro Burlina, MD, Walter Borsini, MD, Agostino Baruzzi, MD,
Pasquale Montagna, MD, and Vincenzo Donadio, MD

	412	A Novel CLCN1 Mutation (G1652A) Causing a Mild Phenotype of Thomsen Disease Kishore R. Kurnar, MBBS, Karl Ng, MBBS, Himesha Vandebona, BSc, PhD, Mark R. Davis, MHGSA, PhD, and Carolyn M. Sue, MBBS, PhD
CASES OF THE MONTH	416	Coexistent Autoimmune Autonomic Ganglionopathy and Myasthenia Gravis Associated with Non–Small-Cell Lung Cancer Amanda C. Peltier, MD, MS, Bonnie K. Black, RN, NP, Satish R. Raj, MD, MS, Peter Donofrio, MD, David Robertson, MD, and Italo Biaggioni, MD
	419	Diffuse Large B-Cell Lymphoma Presenting as Piriformis Syndrome Byoung Seok Ye, MD, Il Nam Sunwoo, MD, Burn Chun Suh, MD, Jong-Pil Park, MD, Dong-Suk Shim, MD, and Seung Min Kim, MD
	423	Acute-Onset Chronic Inflammatory Demyelinating Polyneuropathy with Cranial Nerve Involvement, Dysautonomia, Respiratory Failure, and Autoantibodies Philippe Hantson, MD, PhD, Luc Kevers, MD, Nicole Fabien, PhD, and Peter Van Den Bergh, MD, PhD
LETTERS TO THE EDITOR	427	Genetic Variability in the Myostatin Gene Does Not Explain the Muscle Hypertrophy and Clinical Penetrance in Myotonia Congenita Viviane P. Muniz, MS, Adriano S. Senkevics, BSc, Dinorah Zilbersztajn, BSc, Juliana Gurgel-Giannetti, MD, PhD, Helga C. Silva, MD, PhD, Lydia U. Yamamoto, PhD, Rita C.M. Pavanello, MD, Peter L. Pearson, PhD, Mayana Zatz, PhD, and Mariz Vainzof, PhD
	428	Piriformis Syndrome John D. Stewart, MBBS, FRCPC
	430	Reversal of the Proposed Concept in ALS: Are the Cortical Changes Secondary? Wolfgang Grisold, MD
	432	Calender of Events
	433	AANEM News and Comments
		APRIL 2010
EDITORIAL	439	How Should We Assess Quality of Electrodiagnostic Testing for Carpal Tunnel Syndrome? Richard Rosenbaum, MD
ISSUES & OPINIONS	441	Role of Renshaw Cells in Amyotrophic Lateral Sclerosis Riccardo Mazzocchio, MD and Alessandro Rossi, MD
MAIN ARTICLES	444	Clinical Quality Measures for Electrodiagnosis in Suspected Carpal Tunnel Syndrome Karl J. Sandin, MD, MPH, Steven M. Asch, MD, MPH, Charles K. Jablecki, MD, David D. Kilmer, MD, Teryl K. Nuckols, MD, MSHS, and the Carpal Tunnel Quality Group
	453	Correlation Between the Combined Sensory Index and Clinical Outcome After Carpal Tunnel Decompression: A Retrospective Review Niriksha Malladi. MD. Paula J. Micklesen. BS. Juliet Hou. MD.

and Lawrence R. Robinson, MD

Caused by LMNA Gene Mutations

458

Muscle Imaging Analogies in a Cohort of Patients with Different Clinical Phenotypes

Nicola Carboni, MD, Marco Mura, MD, Giovanni Marrosu, MD, Eleonora Cocco, MD,

Maria Antonietta Maioli, MD, PhD, Rachele Piras, MD, Giorgio Mallarini, MD, Giuseppe Mercuro, MD, Maurizio Porcu, MD, and Maria Giovanna Marrosu, MD

Stefano Marini, MD, Elisabetta Solla, BS, Anna Mateddu, BS,

	464	the Clinical Spectrum of Carriers and Double Heterozygotes of a Novel Mutation in the Chloride Channel CLCN1 Gene Adel Shalata, MD, PhD, Haya Furman, BSc, Vardit Adir, PhD, Noam Adir, PhD, Yasir Hujeirat, PhD, Stavit A. Shalev, MD, and Zvi U. Borochowitz, MD
	470	Homozygosity for Dominant Mutations Increases Severity of Muscle Channelopathies Marianne Arzel-Hézode, MD, Damien Sternberg, MD, Nacira Tabti, MD, PhD, Savine Vicart, MD, Cyril Goizet, MD, PhD, Bruno Eymard, MD, PhD, Bertrand Fontaine, MD, PhD, and Emmanuel Fournier, MD, PhD
	478	Schwann Cells as a Source of Insulin-Like Growth Factor-1 for Extraocular Muscles Chengyuan Feng, PhD and Christopher S. Von Bartheld, MD
	487	Use of Evans Blue Dye to Compare Limb Muscles in Exercised Young and Old mdx Mice Christine I. Wooddell, PhD, Guofeng Zhang, MD, Jacob B. Griffin, BS, Julia O. Hegge,
	500	BS, Thierry Huss, PhD, and Jon A. Wolff, MD The 6-Minute Walk Test as a New Outcome Measure in Duchenne Muscular
		Dystrophy Craig M. McDonald, MD, Erik K. Henricson, MPH, Jay J. Han, MD, R. Ted Abresch, MS, Alina Nicorici, BS, Gary L. Elfring, MS, Leone Atkinson, MD, PhD, Allen Reha, BS, Samit Hirawat, MD, and Langdon L. Miller, MD
	511	Coactivation at the Ankle Joint is Not Sufficient to Estimate Agonist and Antagonist Mechanical Contribution Maxime Billot, MS, Emilie Simoneau, PhD, Jacques van Hoecke, PhD, and Alain Martin, PhD
	519	Joint Angle Dependence of Intermuscle Difference in Postactivation Potentiation Naokazu Miyamoto, PhD, Naotoshi Mitsukawa, MS, Norihide Sugisaki, PhD, Tetsuo Fukunaga, PhD, and Yasuo Kawakami, PhD
	524	Tibialis Anterior Branch Involvement in Fibular Intraneural Ganglia Marie-Noëlle Hébert-Blouin, MD, Kimberly K. Amrami, MD, Huan Wang, MD, John A. Skinner, MD, and Robert J. Spinner, MD
	533	Psychosocial Dysfunction in the First Year After Guillain-Barré Syndrome Robert A.J.A.M. Bernsen, PhD, Aeiko E.J. de Jager, PhD, Wietske Kuijer, PhD, Frans G.A. van der Meché, PhD, and Theo P.B.M. Suurmeijer, PhD
	540	Insights of the Effects of Polyethylene Glycol 400 on Mammalian and Avian Nerve Terminals Mário Oshima, MSc, Gildo Bernardo Leite, BS, Sandro Rostelato-Ferreira, MSc, Maria Alice da Cruz-Höfling, PhD, Léa Rodrigues-Simioni, PhD, and Yoko Oshima-Franco, PhD
SHORT REPORT	547	Minocycline-Induced Dermatomyositis Maiya R. Geddes, MD, Michael Sinnreich, MD, PhD, and Colin Chalk, MDCM
CASES OF THE MONTH	550	Unusual Charcot-Marie-Tooth Phenotype Due to a Mutation Within the Intracellular Domain of Myelin Protein Zero Christiane Schneider-Gold, MD, Judith Kötting, MD, Jörg T. Epplen, MD, Ralf Gold, MD, and Wanda M. Gerding, PhD
	555	A Patient with Neurofibromatosis Type 1 and Charcot–Marie–Tooth Disease Type 1b Eric Lancaster, MD, PhD, Lauren B. Elman, MD, and Steven S. Scherer, MD, PhD
	558	Familial Demyelinating Sensory and Motor Polyneuropathy with Conduction Block Stephen N. Scelsa, MD
	562	Multilevel Ulnar Neuropathy Caused by Multiple Intraneural Hemangiomas Dong Hwee Kim, MD, Jong Woo Kang, MD, and Jong Woong Park, MD
	566	L1 Radiculopathy Mimicking Meralgia Paresthetica: A Case Report Seung Nam Yang, MD and Dong Hwee Kim, MD, PhD
LETTERS TO THE EDITOR	569	Lambert-Eaton Myasthenic Syndrome Associated with Gastric Schwannoma Agata Katia Patanella, MD, Assunta Bianco, MD, Francesco Federico, MD, Anna Modoni, MD, PhD, Pietro Attilio Tonali, MD, and Anna Paola Batocchi, MD, PhD

- 570 Ultrasonographic Tinel Sign: Comment Marta Lucchetta, MD, Chiara Briani, MD, Giovanna A. Liotta, MD, Carlo Martinoli, MD, PhD, Daniele Coraci, MD, and Luca Padua, MD, PhD
- 572 Calender of Events

573 **AANEM News and Comments**

MAY 2010

INVITED REVIEW	581	Immunopathogenesis of Juvenile Dermatomyositis Sahil Khanna, MBBS and Ann M. Reed, MD
MAIN ARTICLES	593	Mycophenolate Mofetil in AChR-Antibody-Positive Myasthenia Gravis: Outcomes in 102 Patients Michael K. Hehir, MD, Ted M. Burns, MD, Joshua Alpers, MD, Mark R. Conaway, PhD, Michael Sawa, MD, and Donald B. Sanders, MD
	599	HIV Neuropathy in South Africans: Frequency, Characteristics, and Risk Factors Jean Maritz, MB ChB, Michael Benatar, DPhil, Joel A. Dave, PhD, Taylor B. Harrison, MD, Motasim Badri, PhD, Naomi S. Levitt, MB ChB, and Jeannine M. Heckmann, PhD
	607	Limited Diagnostic Value of Enzyme Analysis in Patients With Mitochondrial tRNA Mutations Flemming Wibrand, PhD, Tina D. Jeppesen, MD, Anja L. Frederiksen, MD, David B. Olsen, MD, Morten Duno, PhD, Marianne Schwartz, PhD, and John Vissing, MD, PhD
	614	Evidence of Gender-Specific Motor Templates to Resist Valgus Loading at the Knee Martha L. Cammarata, MS and Yasin Y. Dhaher, PhD
	624	SB431542 Treatment Promotes the Hypertrophy of Skeletal Muscle Fibers But Decreases Specific Force Kevin I. Watt, BSc, Richard T. Jaspers, PhD, Phillip Atherton, PhD, Ken Smith, PhD, Michael J. Rennie, PhD, Aivaras Ratkevicius, PhD, and Henning Wackerhage, PhD
	630	Diabetic Neuropathy: Electrophysiological and Morphological Study of Periphera Nerve Degeneration and Regeneration in Transgenic Mice That Express IFNβ in β Cells Anna Serafin, MD, PhD, Jessica Molin, MD, Merce Márquez, PhD, Ester Blasco, MD, Enric Vidal, MD, PhD, Laia Foradada, MD, Sonia Añor, MD, PhD, Rosa M. Rabanal, PhD Dolors Fondevila, MD, PhD, Fàtima Bosch, PhD, and Martí Pumarola, MD, PhD
	642	Redetermination of the Optimal Stimulation Intensity Modifies Resting H-Refle Recovery After a Sustained Moderate-Intensity Muscle Contraction Thomas Rupp, PhD, Olivier Girard, PhD, and Stéphane Perrey, PhD
	651	Short-Term Training Adaptations in Maximal Motor Unit Firing Rates and Afterhyperpolarization Duration Anita Christie, PhD and Gary Kamen, PhD
	661	Ultrasonography in Patients with Ulnar Neuropathy at the Elbow: Comparison of Cross-Sectional Area and Swelling Ratio with Electrophysiological Severity Ayse Oytun Bayrak, MD, Ilkay Koray Bayrak, MD, Hande Turker, MD, Muzaffer Elmali, MD, and Mehmet Selim Nural, MD
	667	Effects of Stimulation Frequency and Pulse Duration on Fatigue and Metaboli Cost During a Single Bout of Neuromuscular Electrical Stimulation Julien Gondin, PhD, Benoît Giannesini, PhD, Christophe Vilmen, BSc, Christiane Dalmasso, MSc, Yann Le Fur, PhD, Patrick J. Cozzone, PhD, and David Bendahan, PhD
	679	Hereditary Amyloidosis of the Finnish Type in a German Family: Clinical an Electrophysiological Presentation

Rainer J. Lüttmann, MD, Inga Teismann, MD, Ingo W. Husstedt, MD, PhD, E. Bernd Ringelstein, MD, PhD, and Gregor Kuhlenbäumer, MD, PhD

	685	Electrical Stimulation Impairs Early Functional Recovery and Accentuates Skeletal Muscle Atrophy After Sciatic Nerve Crush Injury in Rats Davilene Gigo-Benato, MD, Thiago Luiz Russo, PhD, Stefano Geuna, PhD, Natalia Rezende Santa Rosa Domingues, Tania Fátima Salvini, PhD, and Nivaldo Antonio Parizotto, PhD
	694	Characteristics of Locomotion, Muscle Strength, and Muscle Tissue in Regenerating Rat Skeletal Muscles Akira Iwata, MS, Satoshi Fuchioka, MS, Koichi Hiraoka, PhD, Mitsuhiko Masuhara, PhD, and Katsuya Kami, PhD
SHORT REPORTS	702	Eliminating False-Positive Results in Serum Tests for Neuromuscular Autoimmunity Metha Apiwattanakul, MD, Andrew McKeon, MB, MRCPI, Sean J. Pittock, MD, Thomas J. Kryzer, A.S., and Vanda A. Lennon, MD, PhD
	704	Origin of Ulnar Compound Muscle Action Potential Investigated in Patients With Ulnar Neuropathy at the Wrist Mana Higashihara, MD, Masahiro Sonoo, MD, Ichiro Imafuku, MD, Yoshikazu Ugawa, MD, and Shoji Tsuji, MD
CASES OF THE MONTH	707	Myopathy and Parkinsonism in Phosphoglycerate Kinase Deficiency Evangelia Sotiriou, MD, Paul Greene, MD, Sindu Krishna, PhD, Michio Hirano, MD, and Salvatore Dimauro, MD
	710	Primary Amyloidosis Presenting as Upper Limb Multiple Mononeuropathies Jennifer A. Tracy, MD, Peter J. Dyck, MD, and P. James B. Dyck, MD
	715	I-Z-I Complexes in Congenital Myopathy Roy H. Rhodes, MD, PhD and Leroy R. Sharer, MD
	723	Chronic Inflammatory Demyelinating Polyneuropathy Associated With Tumor Necrosis Factor-α Antagonists Amer Alshekhlee, MD, MSc, Kevian Basiri, MD, J. Douglas Miles, MD, PhD, Saef A. Ahmad, MD, and Bashar Katirji, MD
LETTERS TO THE EDITOR	728	Severe Bradycardia in a Patientwith Acute Ophthalmoparesis Without Ataxia Bengt Edvardsson, MD and Staffan Persson, MD
	729	Preservation of Muscle Spindles in a 27-Year-Old Duchenne Muscular Dystrophy Patient: Importance for Regenerative Medicine Strategies Daniel Skuk, MD, Marlyne Goulet, and Jacques P. Tremblay, PhD
	731	Calender of Events
	732	AANEM News and Comments
		JUNE 2010
EDITORIAL	737	On Fixing Broken MuscleFall Seven Times, Stand Up Eight—Japanese Proverts Gregory T. Carter, MD, MS, Jay J. Han, MD, Joel R. Chamberlain, PhD, and Jeffrey S. Chamberlain, PhD
ISSUES	740	Duchenne Muscular Dystrophy: Drug Development and Regulatory Considerations D. Elizabeth McNeil, MD, Carole Davis, DO, Devanand Jillapalli, MD, Shari Targum, MD,

Anthony Durmowicz, MD, and Timothy R. Coté, MD, MPH MAIN ARTICLES 746 Inefficient Dystrophin Expression After Cord Blood Transplantation in Duchenne Muscular Dystrophy Peter B. Kang, MD, Hart G.W. Lidov, MD, PhD, Alexander J. White, BA, Matthew Mitchell, BA, Anuradha Balasubramanian, PhD, Elicia Estrella, MS, Richard R. Bennett, BS, Basil T. Darras, MD, Frederic D. Shapiro, MD,

and Louis M. Kunkel, PhD

Barbara J. Bambach, MD, Joanne Kurtzberg, MD, Emanuela Gussoni, PhD,

751 Bedside Diagnosis of Rippling Muscle Disease in CAV3 p.A46T Mutation Carriers

Jimmy Sundblom, MD, Erik Stålberg, MD, PhD, Maria Österdahl, MD, Franz Rücker, MD, Maria Montelius, MSc, Hannu Kalimo, MD, PhD, Inger Nennesmo, MD, PhD, Gunilla Islander, MD, PhD, Anja Smits, MD, PhD, Niklas Dahl, MD, PhD, and Atle Melberg, MD, PhD

758 Absent, Unrecognized, and Minimal Myotonic Discharges in Myotonic Dystrophy Type 2

Nathan P. Young, DO, Jasper R. Daube, MD, Eric J. Sorenson, MD, and Margherita Milone, MD, PhD

763 Sonographic Evaluation of the Sciatic Nerve in Patients with Lower-Limb Amputations

A. Salim Göktepe, MD, Levent Özçakar, MD, Erkam Kömürcü, MD, İsmail Safaz, MD, and Kamil Yazicioğlu, MD

767 Repeatability of Ultrasonographic Median Nerve Measures

Bradley G. Impink, BS, Dany Gagnon, PhD, Jennifer L. Collinger, PhD, and Michael L. Boninger, MD

774 Excitability Properties of Mouse Motor Axons in the Mutant SOD1^{G93A} Model of Amyotrophic Lateral Sclerosis

Delphine Boërio, PhD, Bernadett Kalmar, PhD, Linda Greensmith, PhD, and Hugh Bostock, PhD

785 Effects of Prolonged Repetitive Stimulation of Median, Ulnar and Peroneal Nerves

Fusun Baumann, MD, Robert D. Henderson, PhD, Fred Tremayne, BSc, Nicole Hutchinson, BN, and Pamela A. McCombe, PhD

794 Validation of an Incremental Motor Unit Number Estimation Technique in Rabbits William S. David, MD, PhD, Namita Goyal, MD, Francis P. Henry, MD, Laura E. Baldassari, MHS, and Robert W. Redmond, PhD

800 Leucine Attenuates Skeletal Muscle Wasting via Inhibition of Ubiquitin Ligases Igor L. Baptista, PhD(Stud), Marcelo L. Leal, PhD(Stud), Guilherme G. Artioli, PhD(Stud), Marcelo S. Aoki, PhD, Jarlei Fiamoncini, PhD, Antonio O. Turri, Rui Curi, PhD, Elen H. Miyabara, PhD, and Anselmo S. Moriscot, PhD

809 Muscle Weakness and Atrophy are Associated with Decreased Regenerative Capacity and Changes in mTOR Signaling in Skeletal Muscles of *Venerable* (18–24-Month-Old) Dystrophic Mdx Mice

E. Mouisel, PhD, A. Vignaud, PhD, C. Hourdé, PhD, G. Butler-Browne, PhD, and A. Ferry, PhD

819 Branched-Chain Amino Acids Protect Against Dexamethasone-Induced Soleus Muscle Atrophy in Rats

Daisuke Yamamoto, MS, Taiki Maki, MS, Elizabeth Henny Herningtyas, MD, PhD, Nobuko Ikeshita, MS, Hiromi Shibahara, MS, Yuka Sugiyama, MS, Shiho Nakanishi, BS, Kejji Iida, MD, PhD, Genzo Iguchi, MD, PhD, Yutaka Takahashi, MD, PhD, Hidesuke Kaji, MD, PhD, Kazuo Chihara, MD, PhD, and Yasuhiko Okimura, MD, PhD

828 Induction of Myogenic Differentiation by SDF-1 via CXCR4 aND CXCR7 Receptors

Roberta Melchionna, PhD, Anna Di Carlo, PhD, Roberta De Mori, PhD, Claudia Cappuzze"o, PhD, Laura Barberi, PhD, Antonio Musarò, PhD, Chiara Cencioni, BS, Nobutaka Fujii, PhD, Hirokazu Tamamura, PhD, Marco Crescenzi, MD, Maurizio C. Capogrossi, MD, Monica Napolitano, MD, and Antonia Germani, MD

836 Effect of Physical Training on Pain Sensitivity and Trapezius Muscle Morphology Pernille Kofoed Nielsen, PhD, Lars L. Andersen, PhD, Henrik B. Olsen, MSc, Lars Rosendal, PhD, Gisela Sjøgaard, DMSc, and Karen Søgaard, PhD

845 The Inhibitory Effect of a Chewing Task on a Human Jaw Reflex Pauline Maillou, BDS, PhD, Samuel W. Cadden, BDS, PhD, and Frank Lobbezoo, DDS, PhD

850 Dorsal Caudal Tail and Sciatic Motor Nerve Conduction Studies in Adult Mice: Technical Aspects and Normative Data

Robin H. Xia, MD, PhD, Neila Yosef, MS, and Eroboghene E. Ubogu, MD

	857	Predicting Fatigue During Electrically Stimulated Non-Isometric Contractions M. Susan Marion, PhD, Anthony S. Wexler, PhD, and Maury L. Hull, PhD
CASES OF THE MONTH	868	Quantification Method Affects Estimates of Voluntary Quadriceps Activation Chandramouli Krishnan, PhD, PT and Glenn N. Williams, PhD, PT
	875	Trigeminal Neuropathy from Perineural Spread of an Amyloidoma Detected by Blink Reflex and Thin-Slice Magnetic Resonance Imaging Yuu Yamazaki, MD, Kazuhide Ochi, MD, Yuki Nakata, MD, Eisuke Dohi, MD, Kuniki Eguchi, MD, Satoshi Yamaguchi, MD, Toshinori Matsushige, MD, Takeshi Ueda, MD, Vishwa J. Amatya, MBBS, Yukio Takeshima, MD, Takeshi Nakamura, MD, Toshiho Ohtsuki, MD, Tatsuo Kohriyama, MD, and Masayasu Matsumoto, MD
	879	A 13-Year-Old Girl with Proximal Weakness and Hypertrophic Cardiomyopathy with Danon Disease Hunmin Kim, MD, Anna Cho, MD, Byung Chan Lim, MD, Min Jung Kim, BS, Ki Joong Kim, MD, PhD, Ichizo Nishino, MD, PhD, Yong Seung Hwang, MD, PhD, and Jong-Hee Chae, MD, PhD
	882	Sensory Ataxic Neuropathy with Dysarthria and Ophthalmoparesis (SANDO) in Late Life Due to Compound Heterozygous <i>POLG</i> Mutations Michael D. Weiss, MD and Russell P. Saneto, DO, PhD
LETTERS TO THE EDITOR	886	An Unusual Case of Finger Buzzing and Dysarthria Stephan A. Botez, MD, Naira Kocharian, MD, and Eric L. Logigian, MD
	887	Sonographic Imaging of the Peripheral Nerves in a Patient with Neurofibromatosis Type 1 Murat Kara, MD, Alize Yılmaz, MD, Sumru Özel, MD, and Levent Özçakar, MD
	888	Adult Onset Charcot-Marie-Tooth Disease Type 1D with an Arg381Cys Mutation of EGR2 Chiara Briani, MD, Federica Taioli, PhD, Marta Lucchetta, MD, Roberto Bombardi, MD, and Gian Maria Fabrizi, MD, PhD
	890	Calender of Events
	891	AANEM News and Comments
	ii	Volume 41 Contents
	xiii	Volume 41 Author Index
	XX	Volume 41 Subject Index

MUSCLE & NERVE



Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

AUTHOR INDEX TO VOLUME 41

This index lists, in alphabetical order, the names of authors of all articles and book reviews. Full citation is provided under the first author only, with cross reference to this author made from entries to other authors. Book reviews are distinguished from articles by the letter B after the page number.

A

Abresch RT, see McDonald CM
Ackermann DM Jr, Foldes EL, Bhadra
N, Kilgore KL: Conduction block of
peripheral nerve using high-frequency
alternating currents delivered through
an intrafascicular electrode, 117
Adir N, see Shalata A
Adir V, see Shalata A
Agata N, see Sasai N
Ahmad SA, see Alshekhlee A
Alacdini A, see Lucchetta M
Allen JA, Scala S, Jones HR: Ocular
myasthenia gravis in a senior
population: Diagnosis, therapy, and
prognosis, 379

Alpers J, see Hehir MK
Alshekhlee A, Basiri K, Miles JD, Ahmad
SA, Katirji B: Chronic inflammatory
demyelinating polyneuropathy
associated with tumor necrosis factorz antagonists, 723
Alton TB, see Apel PI

Amato A, see Pasnoor M Amato AA, see Grable-Esposito P; Milone M Amatya VJ, see Yamazaki Y Amrami KK, see Hébert-Blouin MN

Andersen LL, see Nielsen PK Anderson JL, Morley JW, Head SI: Enhanced homosynaptic LTD in cerebellar Purkinje cells of the dystrophic mdx mouse, 329 Anderson L, see Klinge L

Angelucci F, Colantoni L: Facioscapulohumeral muscular dystrophy: Do neurotrophins play a role?, 120

Añor S, see Serafín A Aoki MS, see Baptista IL Apel PJ, see Shea KG

Apel PJ, Ma J, Callahan M, Northam CN, Alton TB, Sonntag WE, Li Z: Effect of locally delivered IGF-1 on nerve regeneration during aging: An experimental study in rats, 335

Apiwattanakul M, McKeon A, Pittock SJ, Kryzer TJ, Lennon VA: Eliminating false-positive results in serum tets for neuromuscular autoimmunity, 702 Arendt-Nielsen L, see Koutris M Artioli GG, see Baptista IL Arts IMP, Pillen S, Schelhaas J, Overeem S, Zwarts MJ: Normal values for quantitative muscle ultrasonography in adults, 32

Arzel-Hézode M, Sternberg D, Tabti N, Vicart S, Goizet C, Eymard B, Fontaine B, Fournier E: Homozygosity for dominant mutations increases severity of muscle channelopathies, 470

Asch SM, see Sandin KJ Atherton P, see Watt KI Atkinson L, see McDonald CM Aurino S, see Santoro L

B

Badri M, see Maritz J Balasubramanian A, see Kang PB Baldassari LE, see David WS; Goyal N Bambach BJ, see Kang PB Baptista BR, see Tuon L Baptista IL, Leal ML, Artioli GG, Aoki MS, Fiamoncini J, Turri AO, Curi R, Miyabara EH, Moriscot AS: Leucine attenuates skeletal muscle wasting via inhibition of ubiquitin ligases, 800 Barberi L, see Melchionna R Barohn RJ, see Pasnoor M Barresi R, see Klinge L Baruzzi A, see Liguori R Basiri K, see Alshekhlee A Batocchi AP, see Patanella AK Battistin L, see Lucchetta M Baumann F, Henderson RD, Tremayne F, Hutchinson N, McCombe PA: Effects or prolonged repetitive stimulation of median, ulnar and peroneal nerves, 785

Bayrak AO, Bayrak IK, Turker H, Elmali M, Nural MS: Ultrasonography in patients with ulnar neuropathy at the elbow: Comparison of cross-sectional area and swelling ratio with electrophysiological severity, 661 Bayrak IK, see Bayrak AO Beck TW, see Stock MS Bell WL, see Shea KG

Bell WL, see Shea KG Benatar M, see Maritz J Bendahan D, see Gondin J Bennett RR, see Kang PB Bernsen RAJAM, de Jager AEJ, Kuijer W, van der Meché FGA, Suurmeijer TPBM: Psychosocial dysfunction in the first year after Guillain-Barré syndrome, 533

Bernstein MA, see Boyer JG Bertorini T, see Pasnoor M Beyazoa M, see Keles Z Bhadra N, see Ackermann DM Jr Bhatti WA, see Erel E Biaggioni I, see Peltier AC Bianco A, see Patanella AK Bi H, see Hong D

Billot M, Simoneau E, Van Hoecke J, Martin A: Coactivation at the ankle joint is not sufficient to estimate agonist and antagonist mechanical contribution, 511

Black BK, see Peltier AC
Blaes F, see Singh P
Blasco E, see Serafin A
Blumbergs P, see Limaye VS
Boërio D, Kalmar B, Greensmith L.
Bostock H: Excitability properties of
mouse motor axons in the mutant
SOD1^{GSSA} model of amyotrophic
lateral sclerosis, 774

Boe SG, see Pino LJ Bombardi R, see Briani C Boninger ML, see Impink BG Borochowitz NU, see Shalata A Borsini W, see Liguori R Bosch F, see Scrafin A

Bostock H, see Boërio D; Tomlinson SE Botez SA, Kocharian N, Logigian EL: An unusual case of finger buzzing and dysarthria, 886

Boudreau-LaRivière C, see Boyer JG Boyer JG, Bernstein MA, Boudreau-LaRivière C: Plakins in striated muscle, 299

muscle, 239
Briani C, see Lucchetta M
Briani C, Taioli F, Lucchetta M, Bombardi R, Fabrizi GM: Adult onset Charcot-Marie-Tooth disease type 1D with an Arg381Cvs mutation of ECR2, 888

Brookham RL, see Brown SHM Brown SHM, Brookham RL, Dickerson CR: High-pass filtering surface EMG in an attempt to better represent the signals detected at the intramuscular level, 234

xiii

Bruttomesso D, see Lucchetta M
Bugiardini E, see Liguori R
Burke D, see Tomlinson SE
Burlina A, see Liguori R
Burns T, see Pasnoor M
Burns TM, see Hehir MK
Burns TM, Grouse CK, Conaway MR,
Sanders DB, The MG Composite and
MG-QOL15 Study Group: Construct
and concurrent validation of the
MG-QOL15 in the practice setting, 219
Bushby K, see Klinge L
Butler-Browne G, see Mouisel E

C

Cadden SW, see Maillou P Caliandro P, see Liotta G Callahan M, see Apel PJ Cammarata ML, Dhaher YY: Evidence of gender-specific motor templates to resist valgus loading at the knee, 614 Capasso M, see Uncini A Capogrossi MC, see Melchionna R Cappuzzello C, see Melchionna R Carboni N, Mura M, Marrosu G, Cocco E, Marini S, Solla E, Mateddu A, Maioli MA, Piras R, Mallarini G, Mercuro G, Porcu M, Marrosu MG: Muscle imaging analogies in a cohort of patients with different clinical phenotypes caused by LMNA gene mutations, 458 Carboni N, Porcu M, Mura M, Cocco E, Marrosu G, Maioli MA, Solla E, Tranquilli S, Orrù P, Marrosu MG: Evolution of the phenotype in a family with an LMNA gene mutation presenting with isolated cardiac involvement, 85 Carpal Tunnel Quality Group, see Sandin KJ Carter GT, Han JJ, Chamberlain JR, Chamberlain JS: On fixing broken muscle...Fall seven times, stand up eight-Japanese proverb, 737 Cencioni C, see Melchionna R Chabrol B, see Fernandez C Chae JH, see Kim H Chahin N, Temesgen Z, Kurtin PJ, Spinner RJ, Dyck PJB: HIV lumbosacral radiculoplexus neuropathy mimicking lymphoma: Diffuse infiltrative lymphocytosis syndrome (DILS) restricted to nerve?, 276 Chalk C, see Geddes MR Chamberlain JR, see Carter GT Chamberlain JS, see Carter GT Charlton R, see Klinge L Cheng AJ, Rice CL: Voluntary activation in the triceps brachii at short and long muscle lengths, 63 Chihara K, see Yamamoto D Chiu YH, see Klinge L Cho A, see Kim H Cho SC, Katzberg HD, Rama A, Kim BJ, Roh H, Park J, Katz J, So YT: Driving with polyneuropathy, 324 Christie A, Kamen G: Short-term training adaptations in maximal motor unit firing rates and afterhyperpolarization duration, 651 Chui L, see Pasnoor M

Claussen G, see Pasnoor M
Cocco E, see Carboni N
Colantoni L, see Angelucci F
Cole JL, see Kirschner JS
Collilnger JL, see Impink BG
Comim CM, see Tuon L
Conaway MR, see Burns TM; Hehir MK
Connolly S, see McHugh JC
Coraci D, see Lucchetta M
Costa S, see Lucchetta M
Coté TR, see McNeil DE
Cozzone PJ, see Gondin J
Crescenzi M, see Melchionna R
Curi R, see Baptista IL

D

Da Cruz-Höfling MA, see Oshima M Dahl N. see Sundblom I Dalmasso C, see Gondin J Darras BT, see Kang PB Daube JR, see Young NP Dave JA, see Maritz J David WS, see Goval N David WS, Goyal N, Henry FP, Baldassari LE, Redmond RW: Validation of an incremental motor unit number estimation technique in rabbits, 794 Davis C, see McNeil DE Davis MR, see Kumar KR De Carvalho M, Swash M: Sensitivity of electrophysiological tests for upper and lower motor neuron dysfunction in ALS: A six-month longitudinal study, 208 Decorte N, see Tomazin K DeFreitas JM, see Stock MS de Jager AEJ, see Bernsen RAJAM De Mori R, see Melchionna R Dhaher YY, see Cammarata ML Di Carlo A, see Melchionna R Dickerson CR, see Brown SHM Dilek N. see Logigian EL Dilley A, see Erel E Dillon MA, see Stock MS Dimachkie M, see Pasnoor M DiMauro S, see Sotiriou E Dionne A, Nicolle MW, Hahn AF: Clinical and electrophysiological parameters distinguishing acute-onset chronic inflammatory demyelinating polyneuropathy from acute inflammatory demyelinating polyneuropathy, 202 Di Pasquale A, see Liotta G Di Stasi V, see Liguori R Dodd SL, Gagnon BJ, Senf SM, Hain BA, Judge AR: ROS-mediated activation of NF-kB and Foxo during muscle disuse, 110 Doherty TJ, see Pino LJ; Symonette CJ Dohi E, see Yamazaki Y Donadio V, see Liguori R Donofrio P, see Peltier AC Dubbioso R, see Manganelli F Duno M, see Wibrand F Durmowicz A, see McNeil DE Du X, Wooten GF, Matsumoto JA, Phillips LH II: Central nervous system involvement in axonal Charcot-Marie-Tooth disease, 148 Dyck PJ, see Tracy JA Dyck PJB, see Chahin N; Tracy JA

E

Edvardsson B, Persson S: Severe bradycardia in a patient with acute ophthalmoparesis without ataxia, 728 Eguchi K, see Yamazaki Y Elfring GL, see McDonald CM Elmali M, see Bayrak AO Elman LB, see Lancaster E Epplen JT, see Schneider-Gold C Errel E, Dilley A, Turner S, Kumar P, Bhatti WA, Lees VC: Sonographic measurements of longitudinal median nerve sliding in patients following nerve repair, 350 Estrella E, see Kang PB Eymard B, see Arzel-Hézode M

F

Fabien N, see Hantson P Fabrizi GM, see Briani C Faggian D, see Lucchetta M Faraso S, see Santoro L Farina D, see Koutris M Farrell M, see McHugh JC Federico F, see Patanella AK Feng C, Von Bartheld CS: Schwann cells as a source of insulin-like growth factor-1 for extraocular muscles, 478 Fernandez C, Halbert C, Maues de Paula A, Lacroze V, Froissart R, Figarella-Branger D, Chabrol B, Pellissier JF: Non-lethal neonatal neuromuscular variant of glycogenosis type IV with novel GBE1 mutations, 269 Ferry A, see Mouisel E Fiamoncini J, see Baptista IL Figarella-Branger D, see Fernandez C Fiorillo C, see Santoro L Foldes EL, see Ackermann DM Jr Fondevila D, see Serafin A Fontaine B, see Arzel-Hézode M Foradada L, see Serafin A Fournier E, see Arzel-Hézode M Foye PM, see Kirschner JS Fraga DB, see Tuon L Frederiksen AL, see Wibrand F Froissart R, see Fernandez C Fuchioka S, see Iwata A Fujii N, see Melchionna R Fukunaga T, see Miyamoto N Furman H, see Shalata A

G

Gagnon BJ, see Dodd SL Gagnon D, see Impink BG Gardiner PF, see Ogborn DI Geddes MR, Sinnreich M, Chalk C: Minocycline-induced dermatomyositis, Gerding WM, see Schneider-Gold C Germani A, see Melchionna R Geuna S, see Gigo-Benato D Giannesini B, see Gondin J Gigo-Benato D, Russo TL, Geuna S, Santa Rosa Domingues NR, Salvini TF, Parizotto NA: Electrical stimulation impairs early functional recovery and accentuates skeletal muscle atrophy after sciatic nerve crush injury in rats, 685

Chung ME, see Park GY

Gilchrist JM, see Shieh K Girard O, see Rupp T Goizet C, see Arzel-Hézode M Göktepe AS, Özçakar L, Kömürcü E, Safaz I, Yazicioglu K: Sonographic evaluation of the sciatic nerve in patients with lower-limb amputations, 763

Gold R, see Schneider-Gold C Goldstein J, see Pasnoor M Goldstein JM, see Zebardast N Gondin J, Giannesini B, Vilmen C, Dalmasso C, Le Fur Y, Cozzone PJ, Bendahan D: Effects of stimulation frequency and pulse duration on fatigue and metabolic cost during a single bout of neuromuscular electrical stimulation, 667 Goulet M, see Skuk D

Goyal N, see David WS Goyal N, Salameh JS, Baldassari LE, David WS: Added samplling improves reproducibility of multipoint motor unit estimates, 114

Grable-Esposito P, Katzberg HD, Greenberg SA, Srinivasan J, Katz J, Amato AA: Immune-mediated necrotizing myopathy associated with statins, 185

statins, 185
Gradoni L, see Paciello O
Granata G, see Liotta G
Greenberg SA, see Grable-Esposito P
Greene P, see Sotiriou E
Greensmith L, see Boërio D
Griffin JB, see Wooddell CI
Grisold W: Reversal of the proposed
concept in ALS: Are the cortical
changes secondary?, 430
Grouse CK, see Burns TM
Groves M, see Petzold A
Guiraud D, see Papaiordanidou M
Gurgel-Giannetti J, see Muniz VP
Gussoni E, see Kang PB
Gutmann L, Nance C: The illusion of

severe carpal tunnel syndrome (CTS),

H

260

Hahn AF, see Dionne A Hain BA, see Dodd SL Halbert C, see Fernandez C Han JJ, see Carter GT; McDonald CM Hanna M, see Tomlinson SE Hantson P, Kevers L, Fabien N, Van Den Bergh P: Acute-onset chronic inflammatory demyelinating polyneuropathy with cranial nerve involvement, dysautonomia, respiratory failure, and autoantibodies, 423 Harris J, see Klinge L Harrison TB, see Maritz J Hayakawa K, see Sasai N Head SI, see Anderson JL Heatwole CR, see Logigian EL Hébert-Blouin MN, Amrami KK, Wang H, Skinner JA, Spinner RJ: Tibialis anterior branch involvement in fibular intraneural ganglia, 524 Heckmann JM, see Maritz J

Hehir MK, Burns TM, Alpers J, Conaway MR, Sawa M, Sanders DB: Mycophenolate mofetil in AChRantibody-positive myasthenia gravis: Outcomes in 102 patients, 595

Hemmi S, Kushida Ř, Nishimura H, Murakami T, Sunada Y: Magnetic resonance imaging diagnosis of panniculitis in dermatomyositis, 151 Henderson RD, see Baumann F Henricson EK, see McDonald CM Henry FP, see David WS Herbelin L, see Pasnoor M Herningtyas EH, see Yamamoto D Higashihara M, Sonoo M, Imafuku I,

Ugawa Y, Tsuji S: Origin of ulnar compound muscle action potential investigated in patients with ulnar neuropathy at the wrist, 704 Hirano M, see Sotiriou E

Hiraoka K, see Iwata A Hirawat S, see McDonald CM Hong BY, see Park GY

Hong D, Bi H, Yao S, Wang Z, Yuan Y: Clinical phenotype of autosomal dominant progressive external ophthalmoplegia in a family with a novel mutation in the C10orf2 gene, 92

Hornsey M, see Klinge L Hou J, see Malladi N Hourdé C, see Mouisel E Howley R, see McHugh JC Hujeirat Y, see Shalata A Hull ML, see Marion MS Hungs M, see Pasnoor M Huss T, see Wooddell Cl Husstedt IW, see Lüttmann RJ Hutchinson M, see McHugh JC Hutchinson N, see Baumann F Hwang YS, see Kim H

1

Iguchi G, see Yamamoto D lida K, see Yamamoto D Ikeda SI, see Katoh N Ikeshita N, see Yamamoto D Imafuku I, see Higashihara M Impink BG, Gagnon D, Collilnger JL, Boninger ML: Repeatability of ultrasonographic median nerve measures, 767 Im S, see Park GY Inoue-Miyazu M, see Sasai N Iodice R, see Manganelli F Iovane V, see Paciello O Islander G, see Sundblom J Iwata A, Fuchioka S, Hiraoka K, Masuhara M, Kami K: Characteristics of locomotion, muscle strength, and muscle tissue in regenerating rat skeletal muscles, 694

J

Jablecki CK, see Sandin KJ Jacobi C, Ruscheweyh R, Vorgerd M, Weber MA, Storch-Hagenlocher B, Meinck HM: Rippling muscle disease: Variable phenotype in a family with five afflicted members, 128 Jaspers RT, see Watt KI Jeppesen TD, see Wibrand F Jillapalli D, see McNeil DE Jones HR, see Allen JA; Milone M Judge AR, see Dodd SL

K

Kaji H, see Yamamoto D Kalimo H, see Sundblom J Kalmar B, see Boërio D Kamen G, see Christie A Kami K, see Iwata A Kang JW, see Kim DH Kang PB, Lidov HGW, White AJ, Mitchell M, Balasubramanian A, Estrella E, Bennett RR, Darras BT, Shapiro FD, Bambach BJ, Kurtzberg J, Gussoni E, Kunkel LM: Inefficient dystrophin expression after cord blood transplantation in Duchenne muscular dystrophy, 746 Kaps M, see Singh P Kara M, Yilmaz A, Ozel S, Ozčakar L: Sonographic imaging of the peripheral nerves in a patient with neurofibromatosis type 1, 887

Katirji B, see Alshekhlee A Katoh N, Matsuda M, Yoshida T, Yazaki M, Morita H, Sakashita K, Ikeda SI: Primary AL amyloid polyneuropathy successfully treated with high-dose melphalan followed by autologous stem cell transplantation, 138 Katz A, see Milone M

Katzberg HD, see Cho SC; Grable-Esposito P Katz J, see Cho SC; Grable-Esposito P Kawakami K, see Sasai N Kawakami Y, see Miyamoto N Keles Z, Zinnuroglu M, Beyazoa M: Impairment of upper trapezius branch of the spinal accessory nerv

Impairment of upper trapezius branch of the spinal accessory nerve during bypass grafting: A stretch injury?, 144 Kevers L. see Hantson P

Khadilkar SV, Singh RK, Mansukhani KA, Urtizberea JA, Sternberg D: Relief from episodic weakness with pyridostigmine in paramyotonia congenita: A family study, 133 Khanna S, Reed AM:

Immunopathogenesis of juvenile dermatomyositis, 581 Kilgore KL, see Ackermann DM Jr

Kilgore KL, see Ackermann DM Kilmer DD, see Sandin KJ Kim BJ, see Cho SC Kim DH, see Yang SN

Kim DH, Kang JW, Park JW: Multilevel ulnar neuropathy caused by multiple intraneural hemangiomas, 562

Kim H, Cho A, Lim BC, Kim MJ, Kim KJ, Nishino I, Hwang YS, Chae JH: A 13-year-old girl with proximal weakness and hypertrophic cardiomyopathy with Danon disease, 870

6/3 Kim HT, see Liu X Kim HW, see Park GY Kim KJ, see Kim H Kim MJ, see Kim H Kim SM, see Ye BS Kirschner JS, Foye PM, Cole JL: Piriformis syndrome: Response, 429 Kissel J, see Pasnoor M

Hegge JO, see Wooddell Cl

Klinge L, Harris J, Sewry C, Charlton R. Anderson L, Laval S, Chiu YH, Hornsey M, Straub V, Barresi R, Lochmüller H, Bushby K: Dysferlin associates with the developing Ttubule system in rodent and human skeletal muscle, 166 Kobayashi K, see Sasai N Kocharian N, see Botez SA Kohr D, see Singh P Kohriyama T, see Yamazaki Y Kolb SJ, Sutton S, Schoenberg DR: RNA processing defects associated with diseases of the motor neuron, 5 Koltzenburg M, see Tomlinson SE Köműrcű E, see Göktepe AS Koopman WJ, see Symonette CJ Kötting J, see Schneider-Gold C Koutris M, Naeije M, Lobbezoo F, Wang K, Arendt-Nielsen L, Svensson P, Farina D: Normalization reduces the spatial dependency of the jaw-stretch reflex activity in the human masseter muscle, 78 Ko YJ, see Park GY Krishnan C, Williams GN: Quantification method affects estimates of voluntary quadriceps activation, 868 Krishna S, see Sotiriou E Kryzer TJ, see Apiwattanakul M Kuhlenbäumer G, see Lüttmann RJ Kuijer W, see Bernsen RAJAM Kumar KR, Ng K, Vandebona H, Davis MR, Sue CM: A novel CLCN1 mutation (G1652A) causing a mild phenotype of Thomsen disease, 412 Kumar P, see Erel E Kunkel LM, see Kang PB Kuntzer T, see Novy J

L

Kurtin PJ, see Chahin N

Kurtzberg J, see Kang PB Kushida R, see Hemmi S

Lacroze V, see Fernandez C Lancaster E, Elman LB, Scherer SS: A patient with neurofibromatosis type 1 and Charcot-Marie-Tooth disease type 1B, 555 Laval S, see Klinge L Layzer R, Margeta M: Atypical double nerve lesion after humeral fracture: Diagnosis by ultrasound (reply), 288 Leal ML, see Baptista IL Lee DJ, see Liu X Lee II, see Park GY Lees VC, see Erel E Le Fur Y, see Gondin J Leis AA, see Petzold A Leis AA, Stetkarova I, Wells KJ: Martin-Gruber anastomosis with anomalous superficial radial innervation to ulnar dorsum of hand: A pitfall when common variants coexist, 313 Leite GB, see Oshima M Lennon VA, see Apiwattanakul M Levitt NS, see Maritz | Lewis GN, McNair PJ: Heteronymous Iaafferent connections in the upper limb following stroke, 71 Librante A, see Liotta G Lidov HGW, see Kang PB

Liguori R, Di Stasi V, Bugiardini E, Mignani R, Burlina A, Borsini W, Baruzzi A, Montagna P, Donadio V: Small fiber neuropathy in female patients with Fabry disease, 409 Limave VS, Blumbergs P: The prevalence of rimmed vacuoles in biopsy-proven dermatomyositis, 288 Lim BC, see Kim H Lim SH, see Park GY Liotta G, Granata G, Librante A, Di Pasquale A, Caliandro P, Martinoli C, Padua L: Atypical double nerve lesion after humeral fracture: Diagnosis by ultrasound, 287 Liotta GA, see Lucchetta M Liu X, Lee DJ, Skittone LK, Natsuhara K, Kim HT: Role of gelatinases in disuse-induced skeletal muscle atrophy, 174 Li Z, see Apel PJ Lobbezoo F, see Koutris M; Maillou P Lobrinus JA, see Novy J Lochmüller H, see Klinge L Logigian EL, see Botez SA Logigian EL, Twydell P, Dilek N, Martens WB, Quinn C, Wiegner AW, Heatwole CR, Thornton CA, Moxley RT III: Evoked myotonia can be "dialed-up" by increasing stimulus train length in myotonic dystrophy type 1, 191 Lonergan R, see McHugh JC Low PA, see Sletten DM Lucchetta M, see Briani C Lucchetta M, Briani C, Liotta GA, Martinoli C, Coraci D, Padua L: Ultrasonographic Tinel sign: Comment, 570 Lucchetta M, Rudilosso S, Costa S, Bruttomesso D, Ruggero S, Toffanin E, Faggian D, Plebani M, Battistin L, Alaedini A, Briani C: Anti-ganglioside autoantibodies in type 1 diabetes, 50 Lüttmann RJ, Teismann I, Husstedt IW, Ringelstein EB, Kuhlenbäumer G:

M

Maillou P, Cadden SW, Lobbezoo F: The inhibitory effect of a chewing task on a human jaw reflex, 845 Maioli MA, see Carboni N Ma J, see Apel PJ Maki T, see Yamamoto D Malladi N, Micklesen PJ, Hou J, Robinson LR: Correlation between the combined sensory index and clinical outcome after carpal tunnel decompression: A retrospective review, 453 Mallarini G, see Carboni N Manganelli F, Pisciotta C, Iodice R, Dubbioso R, Santoro L: Acute motor conduction block neuropathy or acute multifocal motor neuropathy: An attempt at a nosological systematization (reply), 285 Mansukhani KA, see Khadilkar SV Manzoli C, see Uncini A Margeta M, see Layzer R

Hereditary amyloidosis of the Finnish

type in a German family: Clinical and

electrophysiological presentation, 679

Marini S, see Carboni N Marion MS, Wexler AS, Hull ML: Predicting fatigue during electrically stimulated non-isometric contractions, Maritz J, Benatar M, Dave JA, Harrison TB, Badri M, Levitt NS, Heckmann M: HIV neuropathy in South Africans: Frequency, characteristics, and risk factors, 599 Márquez M, see Serafin A Marrosu G, see Carboni N Marrosu MG, see Carboni N Martens WB, see Logigian EL Martin A, see Billot M Martinoli C, see Liotta G; Lucchetta M Masuhara M, see Iwata A Mateddu A, see Carboni N Matsuda M, see Katoh N Matsumoto JA, see Du X Matsumoto M, see Yamazaki Y Matsushige T, see Yamazaki Y Maues de Paula A, see Fernandez C Mazzocchi R, Rossi A: Role of Renshaw cells in amyotrophic lateral sclerosis, McCombe PA, see Baumann F McDonald CM, Henricson EK, Han JJ, Abresch RT, Nicorici A, Elfring GL, Atkinson L, Reha A, Hirawat S, Miller LL: The 6-minute walk test as a new outcome measure in Duchenne muscular dystrophy, 500 McHugh JC, Lonergan R, Howley R, O'Rourke K, Taylor RW, Farrell M. Hutchinson M, Connolly S: Sensory ataxic neuropathy dysarthria and ophthalmoparesis (SANDO) in a sibling pair with a homozygous p.A467T POLG mutation, 265 McKeon A, see Apiwattanakul M McNair PJ, see Lewis GN McNeil DE, Davis C, Jillapalli D, Targum S, Durmowicz A, Coté TR: Duchenne muscular dystrophy: Drug development and regulatory considerations, 740 McVey A, see Pasnoor M Meinck HM, see Jacobi C Melberg A, see Sundblom J Melchionna R, Di Carlo A, De Mori R, Cappuzzello C, Barberi L, Musarò A, Cencioni C, Fujii N, Tamamura H, Crescenzi M, Capogrossi MC, Napolitano M, Germani A: Induction of myogenic differentiation by SDF-1 via CXCR4 and CXCR7 receptors, Mercuro G, see Carboni N The MG Composite and MG-QOL15 Study Group, see Burns TM Micklesen PJ, see Malladi N Mignani R, see Liguori R Miles JD, see Alshekhlee A Miller LL, see McDonald CM

Mercuro G, see Carboni N
The MG Composite and MG-QOL15
Study Group, see Burns TM
Micklesen PJ, see Malladi N
Mignani R, see Liguori R
Miles JD, see Alshekhlee A
Miller LL, see McDonald CM
Millet GY, see Tomazin K
Milone M, see Young NP
Milone M, Katz A, Amato AA, Soderland
CA, Segarceanu M, Young NP, Jones
HR: Sporadic late onset nemaline
myopathy responsive to IVIg and
immunotherapy, 272
Mitchell M, see Kang PB
Mitsukawa N, see Miyamoto N
Miyabara EH, see Baptista IL

Mivamoto N, Mitsukawa N, Sugisaki N, Fukunaga T, Kawakami Y: Joint angle dependence of intermuscle difference in postactivation potentiation, 519 Modoni A, see Patanella AK Molín J, see Serafin A Montagna P, see Liguori R Montelius M, see Sundblom J Moriscot AS, see Baptista IL Morita H, see Katoh N Morley JW, see Anderson JL Mouisel E, Vignaud A, Hourdé C, Butler-Browne G, Ferry A: Muscle weakness and atrophy are associated with decreased regenerative capacity and changes in mTOR signaling in skeletal muscles of venerable (18-24month-old) dystrophic mdx mice, 809 Moxley RT III, see Logigian EL Mozaffar T, see Pasnoor M Muniz VP, Senkevics AS, Zilbersztajn D, Gurgel-Giannetti J, Silva HC, Yamamoto LU, Pavanello RCM, Pearson PL, Zatz M, Vainzof M: Genetic variability in the myostatin gene does not explain the muscle hypertrophy and clinical penetrance in myotonia congenita, 427 Murakami T, see Hemmi S

N

Mura M, see Carboni N

Musarò A, see Melchionna R

Naeije M, see Koutris M Nagane Y, Suzuki S, Suzuki N, Utsugisawa K: Factors associated with response to calcineurin inhibitors in mvasthenia gravis, 212 Nakamura T, see Yamazaki Y Nakanishi S, see Yamamoto D Nakata Y, see Yamazaki Y Nance C, see Gutmann L Napolitano M, see Melchionna R Nations S, see Pasnoor M Natsuhara K, see Liu X Nennesmo I, see Sundblom J Ng K, see Kumar KR Nicolle MW, see Dionne A; Symonette C] Nicorici A, see McDonald CM Nielsen PK, Andersen LL, Olsen HB, Rosendal L, Sjøgaard GA, Søgaard K: Effect of physical training on pain sensitivity and trapezius muscle morphology, 836 Nigro V, see Santoro L Nishimura H, see Hemmi S Nishino I, see Kim H Nolano M, see Santoro L Northam CN, see Apel Pl Novella S, see Pasnoor M Novella SP, see Zebardast N Novy J. Rosselet A, Spertini O, Lobrinus JA, Pabst T, Kuntzer T: Chemotherapy is successful in sporadic late onset nemaline myopathy (SLONM) with monoclonal gammopathy, 286 Nuckols TK, see Sandin KJ Nural MS, see Bayrak AO

0

Ochi K, see Yamazaki Y Ogborn DI, Gardiner PF: Effects of exercise and muscle type on BDNF,

NT-4/5, and TrKB expression in skeletal muscle, 385 Oh S, see Pasnoor M Ohtsuki T, see Yamazaki Y Okimura Y, see Yamamoto D Oliva G, see Paciello O Olsen DB, see Wibrand F Olsen HB, see Nielsen PK O'Rourke K, see McHugh JC Orrù P, see Carboni N Oshima-Franco Y, see Oshima M Oshima M, Leite GB, Rostelato-Ferreira S, Da Cruz-Höfling MA, Rodrigues-Simioni L, Oshima-Franco Y: Insights of the effects of polyethylene glycol 400 on mammalian and avian nerve terminals, 540 Österdahl M, see Sundblom J Oulerich A, see Tomazin K Overeem S, see Arts IMP Ozçakar L, see Kara M Özçakar L., see Göktepe AS

P

Ozel S, see Kara M

Pabst T, see Novy J Paciello O, Wojcik S, Gradoni L, Oliva G, Trapani F, Iovane V, Politano L, Papparella S: Syrian hamster infected with Leishmania infantum: A new experimental model for inflammatory myopathies, 355 Padua L, see Liotta G; Lucchetta M Papaiordanidou M, Guiraud D, Varray A: Kinetics of neuromuscular changes during low-frequency electrical stimulation, 54 Papparella S, see Paciello O Parizotto NA, see Gigo-Benato D Park GY, Im S, Lee JI, Lim SH, Ko YJ, Chung ME, Hong BY, Kim HW: Effect of superficial peroneal nerve fascial penetration site on nerve conduction studies, 227 Park J, see Cho SC Park JP, see Ye BS Park JW, see Kim DH Pasnoor M, Wolfe GI, Nations S, Trivedi J, Barohn RJ, Herbelin L, McVey A, Dimachkie M, Kissel J, Walsh R, Amato A. Mozaffar T, Hungs M, Chui L, Goldstein J, Novella S, Burns T, Phillips L, Claussen G, Young A, Bertorini T, Oh S: Clinical findings in MuSK-antibody positive myasthenia gravis: A U.S. experience, Patanella AK, Bianco A, Federico F, Modoni A, Tonali PA, Batocchi AP: Lambert-Eaton myasthenic syndrome associated with gastric schwannoma, Patwa HS, see Zebardast N Pavanello RCM, see Muniz VP Pearson PL, see Muniz VP Pellissier JF, see Fernandez C

O Peltier A P, Rol Coexi

Peltier AC, Black BK, Raj SR, Donofrio P, Robertson D, Biaggioni I: Coexistent autoimmune autonomic ganglionopathy and myasthenia gravis associated with non-small-cell lung cancer, 416 Perrey S, see Rupp T Petzold A, Groves M, Leis AA, Scaravilli F, Stokic DS: Neuronal and glial cerebrospinal fluid protein biomarkers are elevated after West Nile virus infection, 42 Phillips L, see Pasnoor M Phillips LH II, see Du X Phillips LH II: Between the covers: This month's main articles, vi, vii Phillips LH II: From the editor: January 2010, 1 Phillips LH II: Reviewer acknowledgments, 2 Pillen S, see Arts IMP Pino LJ, Stashuk DW, Boe SG, Doherty II: Probabilistic muscle characterization using QEMG: Application to neuropathic muscle, 18 Piras R, see Carboni N Pisciotta C, see Manganelli F Pittock SJ, see Apiwattanakul M Plebani M, see Lucchetta M Politano L, see Paciello O Porcu M, see Carboni N Promrat K, see Shieh K Provitera V, see Santoro L

Persson S, see Edvardsson B

Q

Quevedo J, see Tuon L Quinn C, see Logigian EL

Pumarola M, see Serafin A

R

Rabanal RM, see Serafin A Raj SR, see Peltier AC Rama A, see Cho SC Ratkevicius A, see Watt KI Redmond RW, see David WS Reed AM, see Khanna S Reha A, see McDonald CM Rennie MJ, see Watt KI Rezin GT, see Tuon L Rhodes RH, Sharer LR: I-Z-I complexes in congenital myopathy, 715 Rice CL, see Cheng AJ Ringelstein EB, see Lüttmann RJ Roberts NM, Wertsch II: Measuring sensory nerve action potential electrical power, 318 Robertson D, see Peltier AC Robinson LR, see Malladi N; Takahashi Rodrigues-Simioni L, see Oshima M Roh H, see Cho SC Rosenbaum R: How should we assess quality of electrodiagnostic testing for carpal tunnel syndrome?, 439 Rosendal L, see Nielsen PK Rosselet A, see Novy J Rossi A, see Mazzocchi R Rostelato-Ferreira S, see Oshima M Rowland LP: Progressive muscular atrophy and other lower motor neuron syndromes of adults, Rubin DI, see Whaley NR Rücker F, see Sundblom J Rudilosso S, see Lucchetta M Ruggero S, see Lucchetta M

Rupp T, Girard O, Perrey S: Redetermination of the optimal stimulation intensity modifies resisting H-reflex recovery after a sustained moderate-intensity muscle contraction, 642 Ruscheweyh R, see Jacobi C Russo TL, see Gigo-Benato D

S

Safaz I, see Göktepe AS
Sakashita K, see Katoh N
Salameh JS, see Goyal N
Salvini TF, see Gigo-Benato D
Sanders DB, see Burns TM; Hehir MK
Sandin KJ, Asch SM, Jablecki CK,
Kilmer DD, Nuckols TK, Carpal
Tunnel Quality Group: Clinical
quality measures for electrodiagnosis
in suspected carpal tunnel syndrome,
444

Saneto RP, see Weiss MD Santa Rosa Domingues NR, see Gigo-Benato D

Santoro L, see Manganelli F Santoro L, Nolano M, Faraso S, Fiorillo C, Vitiello C, Provitera V, Aurino S, Nigro V: Perioral skin biopsy to study skeletal muscle protein expression, 392

Sasai N, Agata N, Inoue-Miyazu M, Kawakami K, Kobayashi K, Sokabe M, Hayakawa K: Involvement of P13K/ Akt/TOR pathway in stretch-induced hypertrophy of myotubes, 100

Sawa M, see Hehir MK
Scaini G, see Tuon L
Scala S, see Allen JA
Scaravilli F, see Petzold A
Scelsa SN: Familial, demyelinating
sensory and motor polyneuropathy
with conduction block, 558
Schelhaas J, see Arts IMP

Scherer SS, see Lancaster E Schneider-Gold C, Kötting J, Epplen JT, Gold R, Gerding WM: Unusual Charcot-Marie-Tooth phenotype due to a mutation within the intracellular domain of myelin protein zero, 550

Schoenberg DR, see Kolb SJ
Schwartz M, see Wibrand F
Segarceanu M, see Wibrand F
Segarceanu M, see Milone M
Senf SM, see Dodd SL
Senkevics AS, see Muniz VP
Serafin A, Molin J, Márquez M, Blasco
E, Vidal E, Foradada L, Añor S,
Rabanal RM, Fondevila D, Bosch F,
Pumarola M: Diabetic neuropathy:
Electrophysiological and
morphological study of peripheral
nerve degeneration and regeneration
in transgenic mice that express IFNβ

Sewry C, see Klinge L
Shalata A, Furman H, Adir V, Adir N,
Hujeirat Y, Shalev SA, Borochowitz
NU: Myotonia congenita in a large
consanguineous Arab family: Insight
into the clinical spectrum of carriers
and double heterozygotes of a novel
mutation in the chloride channel
CLCN1 gene, 464

Shaley SA, see Shalata A

Shapiro FD, see Kang PB Sharer LR, see Rhodes RH Shea KG, Apel PJ, Showalter LD, Bell WL: Somatosensory evoked potential

monitoring of the brachial plexus during a Woodward procedure for correction of Sprengel's deformity, 262

Shibahara H, see Yamamoto D Shieh K, Gilchrist JM, Promrat K: Frequency and predictors of nonalcoholic fatty liver disease in myotonic dystrophy, 197

Shim DS, see Ye BS
Showalter LD, see Shea KG
Silva HC, see Muniz VP
Simoneau E, see Billot M
Singh P, Kohr D, Kaps M, Blaes F:
Skeletal muscle cell MHC I
expression: Implications for
statin-induced myopathy, 179
Singh RK, see Khadilkar SV

Sinnreich M, see Geddes MR Sjøgaard GA, see Nielsen PK Skinner JA, see Hébert-Blouin MN Skittone LK, see Liu X

Skuk D, Goulet M, Tremblay JP: Preservation of muscle spindles in a 27-year-old Duchenne muscular dystrophy patient: Importance for regenerative medicine strategies, 729

Sletten DM, Weigand SD, Low PA: Relationship of Q-Sweat to quantitative sudomotor axon reflex test (QSART) volumes, 240 Smith K, see Watt KI

Smits A, see Sundblom J
Soderland CA, see Milone M
Sogaard K, see Nielsen PK
Sokabe M, see Sasai N
Solla E, see Carboni N
Sonntag WE, see Apel PJ
Sonoo M, see Higashihara M
Sorenson EJ, see Young NP

Soticiou E, Greene P, Krishna S, Hirano M, DiMauro S: Myopathy and parkinsonism in phosphoglycerate kinase deficiency, 707

So YT, see Cho SC Spertini O, see Novy J Spinner RJ, see Chahin N: Hébert-Blouin MN Sripiesera L see Grable-Fer

Srinivasan J, see Grable-Esposito P Stålberg E, see Sundblom J Stashuk DW, see Pino LJ

Sternberg D, see Arzel-Hézode M; Khadilkar SV

Stetkarova I, see Leis AA Stewart JD: Piriformis syndrome, 428 Stock MS, Beck TW, DeFreitas JM, Dillon MA: Linearity and reliability of

the mechanomyographic amplitude versus dynamic torque relationships for the superficial quadriceps femoris muscles, 342

Stokic DS, see Petzold A
Storch-Hagenlocher B, see Jacobi C
Straub V, see Klinge L
Streck EL, see Tuon L
Sue CM, see Kumar KR
Sugisaki N, see Miyamoto N
Sugiyama Y, see Yamamoto D

Suh BC, see Ye BS Sunada Y, see Hemmi S Sundblom J, Stålberg E, Österdahl M, Rücker F, Montelius M, Kalimo H, Nennesmo I, Islander G, Smits A, Dahl N, Melberg A: Bedside diagnosis of rippling muscle disease in CAV3 p.A46T mutation carriers, 751 Sunwoo IN, see Ye BS Sutton S, see Kolb SJ Suurmeijer TPBM, see Bernsen RAJAM Suzuki N, see Nagane Y Suzuki S, see Nagane Y

Svensson P, see Koutris M Swash M, see De Carvalho M Symonette CJ, Watson BV, Koopman WJ, Nicolle MW, Doherty TJ: Muscle strength and fatigue in patients with generalized myasthenia gravis, 362

T

Tabti N, see Arzel-Hézode M
Taioli F, see Briani C
Takahashi N, Robinson LR: Does display
sensitivity infuence motor latency
determination?, 309
Takahashi Y, see Yamamoto D
Takeshima Y, see Yamazaki Y
Tamamura H, see Melchionna R
Targum S, see McNeil DE
Taylor RW, see McHugh JC
Teismann I, see Lûttmann RJ
Temesgen Z, see Chahin N

Thornton CA, see Logigian EL Toffanin E, see Lucchetta M Tomazin K, Verges S, Decorte N, Oulerich A, Millet GY: Effects of coil characteristics for femoral nerve magnetic stimulation, 406

Tomlinson SE, Burke D, Hanna M, Koltzenburg M, Bostock H: In vivo assessment of HCN channel current (I_h) in human motor axons, 247

Tonali PA, see Patanella AK Tracy JA, Dyck PJ, Dyck PJB: Primary amyloidosis presenting as upper limb multiples are Carboni N

Tranquilli S, see Carboni N Trapani F, see Paciello O Tremayne F, see Baumann F Tremblay JP, see Skuk D Trivedi J, see Pasnoor M Tsuji S, see Higashihara M Tuon L, Comim CM, Fraga DB, Scaini

G, Rezin GT, Baptista BR, Streck EL, Vainzof M, Quevedo J: Mitochondrial respiratory chain and creatine kinase activities in *mdx* mouse brain, 257

Turker H, see Bayrak AO Turner S, see Erel E Turri AO, see Baptista IL Twydell P, see Logigian EL

U

Ubogu EE, see Xia RH
Ueda T, see Yamazaki Y
Ugawa Y, see Higashihara M
Uncini A, Manzoli C, Capasso M: Acute
motor conduction block neuropathy
or acute multifocal motor
neuropathy: An attempt at a
nosological systematization, 283

in β cells, 630

Urtizberea JA, see Khadilkar SV Utsugisawa K, see Nagane Y

٧

Vainzof M, see Muniz VP; Tuon L Vandebona H, see Kumar KR Van Den Bergh P, see Hantson P van der Meché FGA, see Bernsen RAIAM Van Hoecke J, see Billot M Varray A, see Papaiordanidou M Verges S, see Tomazin K Vicart S, see Arzel-Hézode M Vidal E, see Serafin A Vignaud A, see Mouisel E Vilmen C, see Gondin J Vissing J, see Wibrand F Vitiello C, see Santoro L Voigt T: Early effects of carbachol on the morphology of motor endplates of mammalian skeletal muscle fibers, Von Bartheld CS, see Feng C Vorgerd M, see Jacobi C

W

Walsh R, see Pasnoor M
Wang H, see Hebert-Blouin MN
Wang K, see Koutris M
Wang Z, see Hong D
Watson BV, see Symonette CJ
Watt KI, Jaspers RT, Atherton P, Smith
K, Rennie MJ, Ratkevicius A,
Wackerhage H: SB431542 treatment
promotes the hypertrophy of skeletal
muscle fibers but decreases specific
force, 624
Weber MA, see Jacobi C

Wackerhage H, see Watt KI

Weigand SD, see Sletten DM

Weiss MD, Saneto RP: Sensory ataxic

neuropathy with dysarthria and

ophthalmoparesis (SANDO) in late

Wexler AS, see Marion MS Whaley NR, Rubin DI: Myokymic discharges in amyotrophic lateral sclerosis (ALS): A rare electrophysiologic finding?, 107 White AJ, see Kang PB Wibrand F, Jeppesen TD, Frederiksen AL, Olsen DB, Duno M, Schwartz M, Vissing J: Limited diagnostic value of enzyme analysis in patients with mitochondrial tRNA mutations, 607 Wiegner AW, see Logigian EL Williams GN, see Krishnan C Wojcik S, see Paciello O Wolfe GI, see Pasnoor M Wolff JA, see Wooddell CI Wooddell CI, Zhang G, Griffin JB, Hegge JO, Huss T, Wolff JA: Use of Evans blue dye to compare limb muscles in exercised young and old mdx mice, 487 Wooten GF, see Du X

life due to compound heterozygous

POLG mutations, 882 Wells KJ, see Leis AA

Wertsch JJ, see Roberts NM

X

Xia RH, Yosef N, Ubogu EE: Dorsal caudal tail and sciatic motor nerve conduction studies in adult mice: Technical aspects and normative data, 850

Y

Yamaguchi S, see Yamazaki Y Yamamoto D, Maki T, Herningtyas EH, Ikeshita N, Shibahara H, Sugiyama Y, Nakanishi S, Iida K, Iguchi G, Takahashi Y, Kaji H, Chihara K, Okimura Y: Branched-chain amino acids protect against dexamethasoneinduced soleus muscle atrophy in rats, 819

Yamamoto LU, see Muniz VP

Yamazaki Y, Ochi K, Nakata Y, Dohi E, Eguchi K. Yamaguchi S, Matsushige T, Ueda T, Amatya VJ, Takeshima Y. Nakamura T, Ohtsuki T, Kohriyama T. Matsumoto M: Trigeminal neuropathy from perineural spread of an amyloidoma detected by blink reflex and thin-slice magnetic resonance imaging, 875 Yang SN, Kim DH: L1 radiculopathy mimicking meralgia paresthetica: A case report, 566 Yao S, see Hong D Yazaki M, see Katoh N Yazicioglu K, see Göktepe AS Ye BS, Sunwoo IN, Suh BC, Park JP, Shim DS, Kim SM: Diffuse large B-cell lymphoma presenting as piriformis syndrome, 419 Yilmaz A, see Kara M Yosef N, see Xia RH Yoshida T, see Katoh N Young A, see Pasnoor M Young NP, see Milone M Young NP, Daube JR, Sorenson EJ, Milone M: Absent, unrecognized, and minimal myotonic discharges in myotonic dystrophy type 2, 758 Yuan Y, see Hong D

Z

Zatz M, see Muniz VP Zebardast N, Patwa HS, Novella SP, Goldstein JM: Rituximab in the management of refractory myasthenia gravis, 375 Zhang G, see Wooddell CI Zilbersztajn D, see Muniz VP Zinnuroglu M, see Keles Z Zwarts MJ, see Arts IMP

MUSCLE & NERVE



Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

SUBJECT INDEX TO VOLUME 41

This index gives the first page of the article in which the indexed subject occurs.

A

Abductor pollicis brevis muscle, 309
Accessory nerve injury, 144
Acetylcholine receptor (AChR)
antibodies, 593
Acute inflammatory demyelinating
polyneuropathy, 202
Acute motor conduction block
neuropathy (AMCBN), 283, 285
Acute multifocal motor neuropathy
(AMMN), 283, 285
Acute-onset chronic inflammatory
demyelinating polyneuropathy, 202
Acute ophthalmoparesis, 728
Adult lower motor neurop syndromes

demyelinating polyneuropathy, 202
Acute ophthalmoparesis, 728
Adult lower motor neuron syndromes, 161
Adult muscle ultrasonography, 32
Adult-onset Charcot-Marie-Tooth disease
type 1D, 888
Afterhyperpolarization, 651
Aging, 335, 379
Agonist muscles, 511
Akt, 92

Amputation, 763 Amyloid, 138 Amyloid polyneuropathy, 138 Amyloidoma, 875 Amyloidosis, 710

Amyotrophic lateral sclerosis, 107, 208, 430, 441, 774 Andersen disease, 269

Andersen disease, 269 Animal models, 257, 329, 335, 355, 487, 630, 685, 694, 774, 794, 800, 809, 819, 850 Ankle joint, 511 Antagonist muscles, 511

Antibodies, 370, 593 Antiganglioside autoantibodies, 50

Arabs, 464 Ataxia, 728

Ataxic neuropathy, 265, 882 Atypical double nerve lesion, 287, 288 Autoantibodies, 50, 423

Autoimmune autonomic ganglionopathy, 416

Autoimmunity, 702

Autologous stem cell transplantation, 138 Autosomal dominant progressive external ophthalmoplegia, 92

Axonal Charcot-Marie-Tooth disease, 148

B

B-cell lymphoma, 419 B cells, 630 Biceps brachii (BB) muscle, 71 Biofeedback, 511 Blink reflex, 875 Brachial plexus, 262 Bradycardia, 728 Brain-derived neurotrophic factor

(BDNF), 385 Branched-chain amino acids, 819 Bypass grafting, 144

C

Calcineurin inhibitors, 212 Carbachol, 399 Cardiomyopathy, 879 Carpal tunnel syndrome, 260, 439, 444, Catalase, 110 Caveolin-3 gene (CAV3), 751 Cell differentiation, 828 Central nervous system, 148 Cerebellum, 329 Cerebrospinal fluid, 42 Channelopathy, 470 Charcot-Marie-Tooth disease, 148, 550 Charcot-Marie-Tooth disease type 1B, 555 Charcot-Marie-Tooth disease type 1D, 888 Chemokine receptor CXCR4, 828 Chemokine receptor CXCR7, 828 Chemotherapy, 286 Chewing, 845 Chloride channel gene (CLCN1), 412, 427, 464 Chronic inflammatory demyelinating polyneuropathy, 202, 423, 723 CLCN1 gene, 412, 427, 464 Combined sensory index (CSI), 453 Compound muscle action potential (CMAP), 309, 704 Conduction block, 117, 558 Congenital myopathy, 715 Cord blood transplantation, 746 C10orf2 gene, 92 Cranial nerve, 423 Creatine kinase, 257

Crush injury, 685

Danon disease, 879

Depression, long-term, 324

CXC receptor 4 (CXCR4), 828

CXC receptor 7 (CXCR7), 828

Dermatomyositis, 151, 288, 547, 581 Dexamethasone, 819 Diabetes, type 1, 50 Diabetic neuropathy, 630 Diffuse infiltrative lymphocytosis syndrome (DILS), 276 Diffuse large B-cell lymphoma, 419 Dorsal caudal tail nerve motor conduction, 850 Dorsiflexion, 511 Dorsiflexor muscle, 651 Double nerve lesion, 287, 288 Driving, 324 Drug development, 740 Drug regulations, 740 Duchenne muscular dystrophy, 329, 500, 729, 737, 740, 746 Dynamic torque, 342 Dysarthria, 265, 882, 886 Dysautonomia, 423 Dysferlin, 166 Dystrophin, 737, 746 Dystrophin deficiency, 257 Dystrophin gene, 737

E

Early growth response element 2 gene (EGR2), 888 Elbow, 661 Electrical power, 318 Electrical stimulation, 54, 667, 685, 857 Electrodiagnosis, 444, 453 Electrodiagnostic testing, 439 Electromyography, 18, 234, 309, 511 Electrophysiological tests, 208 Electrophysiology, 107, 202, 661 Energy metabolism, 257 Enzyme analysis, 607 Episodic weakness, 133 Evans blue dye (EBD), 487 Evoked myotonia, 191 Excitability, 774 Exercise, 385, 487 Extraocular muscles, 478

F

Fabry disease, 409 Facioscapulohumeral muscular dystrophy, 120 False-positive serology, 702 Familial amyloid polyneuropathy type IV, 679
Familial demyelinating sensory and motor (FaDSAM) polyneuropathy, 558
Family studies, 133
Fatigue, 362, 667, 857
Fatty liver, 197
Federal regulations, 740
Female patients, 409
Femoral nerve, 406
Fibular (peroneal) intraneural ganglia, 524
Finger buzzing, 886
Fiexor carpi radialis (FCR) muscle, 71

Food and Drug Administration (FDA), 740 Foot, 651

Forkhead box O (Foxo), 110

_

Ganglioside autoantibodies, 50
Gastric schwarnoma, 569
GBE1 gene, 269
Gelatinases, 174
Gender differences, 614
Gene mutations, 85, 92, 265, 269, 412, 427, 458, 464, 470, 550, 607, 751, 882, 888
Germans, 679
Glutamic acid decarboxylase (GAD₆₅), 50
Glycogen branching enzyme (GBE), 269
Glycogen storage disease type IV, 269
Glycogenosis type IV, 269
Guillain-BarrÔ syndrome, 533

H

H-reflex (Hoffmann reflex), 642 Hand, 313 HCN channels, 247 Health-related quality of life, 219 Hemangioma, 562 Hereditary amyloidosis of the Finnish type (HAF), 679 High-frequency conduction block, 117 High-pass filtering surface electromyography, 234 HIV infection, 276, 599 HIV neuropathy, 599 Hoffmann reflex (H-reflex), 642 Homosynaptic long-term depression (LTD), 324 Human immunodeficiency virus (HIV), 276, 599 Humeral fracture, 287, 288 Hyperpolarization-activated, cyclic nucleotidemodulated cation (HCN) channels, 247 Hypertrophic cardiomyopathy, 879 Hypertrophy, 92, 624

ı

I-Z-I complexes, 715 Immune myopathy, 185 Immunopathogenesis, 581 Immunotherapy, 272 Inclusion body myositis, 288 Incremental motor unit number estimation, 794
Infection, 42, 276, 599
Inflammatory myopathy, 355
Insulin-like growth factor 1 (IGF-1), 335, 478
Interferon β , 630
Interpolated twitch technique (ITT), 63
Intrafascicular electrodes, 117
Intraneural hemangioma, 562
Intravenous immunoglobulin, 272

J

Jaw reflex, 845 Jaw-stretch reflex, 78 Joint angle, 519 Juvenile dermatomyositis, 581

ĸ

Knee, 614 Krivickas, Lisa, 290

L

L1 radiculopathy, 566
Lambert-Eaton myasthenic syndrome, 569
Leg muscle imaging, 458
Leishmania infantum, 355
Leucine, 800
LMNA gene, 85, 458
Locomotion, 694
Long-term depression (LTD), 324
Lower-limb amputation, 763
Lower motor neuron dysfunction, 208
Lower motor neuron syndromes, 161
Lumbosacral radiculoplexus neuropathy (LRPN), 276
Lung cancer, 416
Lymphoma, 276, 419

M

Magnetic coils, 406

Magnetic resonance imaging, 151, 875 Magnetic stimulation, 406 Major histocompatibility complex I, 179 Mammalian target of rapamycin (mTOR), 809 Martin-Gruber anastomosis (MGA), 313 Masseter muscle, 78 Maximal voluntary contraction, 511 mdx mouse, 257, 329, 487, 809 Mechanomyography (MMG), 342 Medial gastrocnemius muscle, 519 Median nerve, 767, 785 Median nerve sliding, 350 Melphalan, 138 Meralgia paresthetica, 566 Metabolic cost, 667 Metabolic demand, 667 Middle deltoid (MD) muscle, 71 Minocycline, 547 Mitochondria, 257, 607 Mitochondrial myopathy (MM), 607 Monoclonal gammopathy, 286 Mononeuropathy, 710 Motoneuron afterhyperpolarization, 651 Motor axons, 247, 774

Motor control, 614 Motor cortex, 430 Motor endplates (MEPs), 399 Motor latency determination, 309 Motor nerve conduction studies, 850 Motor neuron diseases, 5 Motor templates, 614 Motor unit firing rate, 651 Motor unit number estimation (MUNE), 114, 794 Motor vehicle accidents, 324 MPZ gene, 550 MSTN gene, 427 Multifocal, acquired demyelinating sensory and motor (MADSAM) polyneuropathy, 558 Multifocal motor neuropathy (MMN), 283, 285 Multiple intraneural hemangiomas, 562 Multiple mononeuropathies, 710 Multiple-point stimulation (MPS), 114 Muscle & Nerve, 1 Muscle activation, 868 Muscle atrophy, 110, 174, 685, 809, 819 Muscle channelopathy, 470 Muscle contraction, 642, 857 Muscle disuse, 110 Muscle fatigue, 362, 857 Muscle fiber damage, 487 Muscle fiber hypertrophy, 624 Muscle fibers, 624 Muscle function, 809 Muscle hypertrophy, 427 Muscle injury, 694 Muscle length, 63 Muscle regeneration, 694, 809 Muscle-specific kinase antibody (MuSK-Ab), 370 Muscle spindles, 729 Muscle strength, 362, 694 Muscle tissue, 694 Muscle type, 385 Muscle wasting, 800 Muscle weakness, 809 Muscular dystrophy, 120, 487 Mutations, 85, 92, 265, 269, 412, 427, 458, 464, 470, 550, 607, 751, 882, 888 Myasthenia gravis (MG), 212, 219, 362, 370, 375, 379, 416, 593 Myasthenia Gravis Quality-of-Life Questionnaire (MG-QOL15), 219 Mycophenolate mofetil (MMF), 593 Myelin protein zero gene (MPZ), 550 Myogenesis, 828 Myokymic discharges, 107 Myopathy, 179, 185, 707, 715 Myostatin gene (MSTN), 427 Myotonia, 191 Myotonia congenita, 427, 464 Myotonic discharges, 758 Myotonic dystrophy, 197 Myotonic dystrophy type 1, 191 Myotonic dystrophy type 2, 758 Myotubes, 92

N

Necrotizing myopathy, 185 Nemaline myopathy, 272, 286 Nerve conduction studies, 227 Nerve crush injury, 685 Nerve regeneration, 335 Nerve repair, 350 Nerve sliding, 350 Neurofibromatosis type 1, 555, 887
Neurolymphomatosis, 419
Neuromuscular autoimmunity, 702
Neuromuscular electrical stimulation
(NMES), 667
Neuromuscular fatigue, 54
Neuropathic muscle, 18
Neuropathy, 875
Neurotrophin-4/5 (NT-4/5), 385
Neurotrophins, 120
Nonalcoholic fatty liver disease, 197
Non-small-cell lung cancer, 416
Normalization, 78
Nuclear factor-кВ (NF-кВ), 110

0

Ocular myasthenia gravis, 379 Older adults, 379, 882 Ophthalmoparesis, 265, 728, 882

P

Pain sensitivity, 836 Panniculitis, 151 Paramyotonia congenita, 133 Parkinsonism, 707 Perioral skin biopsy, 392 Peripheral nerve block, 117 Peripheral nerves, 630, 887 Peroneal nerve, 785 Phenotype, 85, 92, 128, 412, 458, 550 Phosphatidylinositol 3-kinase, 92 Phosphoglycerate kinase (PGK) deficiency, 707 Physical training, 836 Piriformis syndrome, 419, 428, 429 Plakins, 299 Plantarflexion, 511 POLG gene, 265, 882 Polyethylene glycol 400, 540 Polymerase 7 gene (POLG), 265, 882 Polyneuropathy, 324 Postactivation potentiation, 519 Probabilistic muscle characterization, 18 Progressive external ophthalmoplegia, Progressive muscular atrophy, 161 Prolonged repetitive nerve stimulation, Protein expression, 392 Proximal weakness, 879 Psychosocial dysfunction, 533 Purkinje cells, 329 Pyridostigmine, 133

Q

Q-Sweat (Quantitative Sweat Measurement System), 240 Quadriceps femoris muscle, 342 Quadriceps muscle, 868 Quality measures, 444 Quality of life, 219 Quantification, 868 Quantitative electromyography (QEMG), 18 Quantitative muscle ultrasonography, 32 Quantitative sudomotor axon reflex test (QSART), 240

R

Radiculopathy, 566 Rapamycin, 92 Reactive oxygen species, 110 Renshaw cells, 441 Repetitive nerve stimulation (RNS), 785 Respiratory failure, 423 Rimmed vacuoles, 288 Rippling muscle disease, 128, 751 Rituximab, 375 RNA processing defects, 5

S

SB431542, 624 Schwann cells, 478 Schwannoma, 569 Sciatic nerve, 763 Sciatic nerve crush injury, 685 Sciatic nerve motor conduction, 850 SCN4A gene, 470 Senior persons, 379, 882 Sensory ataxic neuropathy, dysarthria, and ophthalmoparesis (SANDO), 265, Sensory nerve action potential (SNAP), 318 Serology, 702 Serum tests, 702 Severe carpal tunnel syndrome, 260 Siblings, 265 6-minute walk test, 500 Skeletal muscle, 166, 174, 179, 385, 392, 399, 624, 685, 694, 800, 809 Skeletal muscle atrophy, 174 Skeletal muscle cells, 179 Skeletal muscle injury, 694 Skeletal muscle regeneration, 694 Skeletal muscle wasting, 800 Skin biopsy, 392 Small fiber neuropathy, 409 SNAP electrical power (SELP), 318 Sodium channel gene (SCN4A), 470 Soleus muscle, 519, 819 Somatosensory evoked potentials, 262 Sonography, 763, 887 South Africans, 599 Spinal accessory nerve injury, 144 Sporadic late onset nemaline myopathy (SLONM), 272, 286 Sprengel's deformity, 262 Statins, 179, 185 Stem cell therapy, 737 Stem cell transplantation, 138, 737 Stimulus train length, 191 Stretch, 92 Stretch injury, 144 Striated muscle, 299 Stroke, 71

Stromal cell-derived factor (SDF)-1, 828 Sudomotor axon reflex, 240 Superficial peroneal nerve, 227 Superficial quadriceps femoris muscles, 342 Superficial radial nerve, 313 Superoxide dismutase SOD1G93A, 774 Sweat response, 240

T

T-tubule system, 166 Target of rapamycin (TOR), 92, 809 Thin-slice magnetic resonance imaging, Thomsen disease, 412 Tibialis anterior branch cyst, 524 Tinel sign, 570 Torque, 342, 511 Training, 651, 836 Transfer RNA (tRNA), 607 Transplantation, 138, 746 Trapezius muscle, 836 Triceps brachii muscle, 63 Trigeminal neuropathy, 875 Tropomyosin-related kinase B (trkB), 385 Tumor necrosis factor-a antagonists, 723 Twitch interpolation, 63 Tyrosine phosphatase (IA2), 50

U

Ubiquitin ligases, 800
Ubiquitin-proteasome system (UPS), 800
Ulnar compound muscle action
potential, 704
Ulnar dorsum, 313
Ulnar nerve, 785
Ulnar neuropathy, 562, 661, 704
Ultrasound, 32, 287, 288, 350, 570, 661, 763, 767, 887
Umbilical cord blood transplantation, 746
Upper limb multiple
mononeuropathies, 710
Upper limb reflexes, 71
Upper motor neuron dysfunction, 208

V

Valgus loading, 614 Voluntary activation estimates, 868 Voluntary muscle activation, 63

w

Walk test, 500 Wasting, 800 Weakness, 133, 809, 879 West Nile virus infection, 42 Woodward procedure, 262 Wrist, 704

